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UNIVERSITY OF OXFORD.

UNDER THE STATUTE

*“ De Examine Candidatorum qui non sunt
de corpore Universitatis.”*

EXAMINATION PAPERS,

AND

DIVISION LISTS, &c.

FOR THE EXAMINATION HELD IN JUNE,

1858.


OXFORD:

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THE STATUTE

PASSED BY CONVOCATION, JUNE 18, 1857.

STATUTUM NOVUM.

*De Examinatione Candidatorum qui non sunt de corpore
Universitatis.*

Quum sit multifariam petitum ut bonæ spei adolescentes, extra Academiam literis artibusque humanioribus studentes, examinatione habita, in Clientelam Universitatis recipiantur,

Placuit Universitati hæc quæ sequuntur sancire—

1. Candidatorum qui non sunt de corpore Universitatis Examinatio, vel intra Academiam, vel, si res ita ferat, etiam alibi, quotannis habeatur duplex, videlicet,—Seniorum qui decimum octavum, Juniorum qui decimum quintum ætatis annum nondum compleverint.

2. Fiat Examinatio tum in Rudimentis Fidei et Religionis (nisi alicujus parentes vel qui in loco parentis sint hanc renue- rint); tum in Literis Anglicis, in Historia, in Linguis, in Mathe- matica, in Scientiis Physicis, et in cæteris artibus quæ ad juven- tatem liberaliter educandam pertinent.

3. Testimonium accipiat quicumque tum Seniorum tum Junio- rum Examinatoribus satisfecerit; titulo etiam Associati in Artibus ex Academiæ auctoritate Senioribus collato.

4. Delegati sint, præter Vice-Cancellarium et Procuratores, duodeviginti, ex iis qui jus intrandi domum Convocationis habent in triennium ad hoc nominandi, sex a Concilio Heb- domadali e suo ipsius corpore, sex a Congregatione Universi- tatis Oxoniensis, sex denique a Vice-Cancellario et Procura- toribus. Quorum sit officium Examinatores nominare, necnon tempora, loca, modum Examinationum, classium numerum, cæteraque eodem pertinentia speciatim ordinare.

5. Feoda a singulis examinaudis exigantur, quanta, e judicio Delegatorum, expensis necessariis Examinationum sufficiant.

6. Teneantur Delegati ad rationem actorum quotannis Uni- versitati reddendam.

THE DELEGATES.

The Vice-Chancellor,
The Senior Proctor,
The Junior Proctor,

Members
of the
Hebdoma-
dal Council.

Rev. the Master of Pembroke College, D.C.L.
Rev. the Master of Balliol College, D.D.
Rev. W. Jacobson, D.D., Canon of Ch. Ch., Regius
Professor of Divinity.
Rev. B. Price, M.A., Fellow and Tutor of Pem-
broke College, Sedleian Professor of Natural
Philosophy, and Public Examiner.
Rev. H. L. Mansel, B.D., Prælector of Moral Philo-
sophy in Magdalen College, late Public Examiner.
Rev. J. E. Sewell, M.A., Fellow of New College.

Elected by
Congrega-
tion.

Rev. the Provost of Oriel College, D.D.
J. Phillips, Esq., M.A., Magdalen College, Reader
in Geology.
Thos. D. Acland, Esq., M.A., late Fellow of All-
Souls.
Rev. G. Rawlinson, M. A., late Fellow and Tutor
of Exeter College, Public Examiner.
Rev. W. C. Lake, M.A., Fellow and Tutor of
Balliol College, late Public Examiner.
Rev. F. Temple, M.A., late Fellow of Balliol College,
Her Majesty's Inspector of Training Schools.
Rev. W. F. Hook, D.D., late Student of Ch. Ch.,
Vicar of Leeds.

Nominated
by the Vice-
Chancellor
and Proc-
tors.

Rev. W. Sewell, D.D., Fellow of Exeter College,
and Warden of St. Peter's College, Radley, late
Public Examiner.
Rev. R. Walker, M.A., Wadham College, Reader in
Experimental Philosophy, late Public Examiner.
Rev. W. Hedley, M.A., Fellow and Tutor of Uni-
versity College, Public Examiner.
Rev. J. W. Burgon, M.A., Fellow of Oriel College.
Rev. J. E. T. Rogers, M.A., Magdalen Hall, Public
Examiner.

REGULATIONS

FRAMED BY THE DELEGATES FOR CARRYING THE
STATUTE INTO EFFECT.

EXAMINATION FOR THE YEAR 1858.

The Examination will commence on Monday the 21st of June, 1858.

Junior and Senior Candidates will be examined at the same time; but the Papers for the two Examinations will be different.

EXAMINATION OF JUNIOR CANDIDATES.

(For Certificates.)

Candidates must be under 15 years of age on the day when the Examination begins.

1. All Candidates at this Examination will be required to satisfy the Examiners in

1. Reading aloud a passage from Southey's Life of Nelson.
2. Writing from Dictation.
3. The analysis and parsing of a passage taken from Goldsmith's Deserted Village.

A few questions will also be set on the allusions, &c. in the Poem.

4. Writing a short English Composition, such as a description of a place, an account of some useful natural or artificial product, or the like.

5. Arithmetic.

No Candidate will be passed who cannot work the first four rules simple and compound, whatever may be his excellence in other respects.

6. Geography.

Every Candidate will be required to draw from memory an outline Map showing the coast line, the chief ranges of mountains, and the chief rivers of some country to be named by the Examiners from the following list:—

England, Scotland, Ireland, Europe, Asia, Africa, North America, South America, Australasia.

Questions will also be set in Geography.

7. The outlines of English History: that is, the succession of Sovereigns, the chief events, and some account of the leading men, in each reign.

N. B. The quality of the handwriting in the several Exercises will be taken into account.

* II. The Examination in the Rudiments of Faith and Religion will consist of questions in

1. The Books of Genesis and Exodus, the Gospel of St. Matthew, and the Acts of the Apostles.
 2. The Catechism, the Morning and Evening Services, and the Litany.
-

III. Papers will also be set in the following eight subjects; and every Candidate will be required to offer himself for Examination in one subject at least; but no Candidate will be examined in more than four:—

1. Latin.

A passage will be given from Cæsar de Bello Gallico, (Books I. II. III.) for translation into English, with questions on the parsing, and the historical or geographical allusions.

* This Examination will not be required of any Candidate whose Parents or Guardians shall have declined it on his behalf.

An easy passage for translation from some other Latin book.

A passage of English (with the Latin words supplied) for translation into Latin.

2. Greek.

A passage will be given from Xenophon's *Anabasis*, (Books I. II.) for translation into English, with questions on the parsing, and the historical or geographical allusions.

An easy passage for translation from some other Greek book.

3. French.

A passage will be given from Voltaire's *Charles XII.*, with questions on the parsing, and the historical or geographical allusions.

A passage from a French Newspaper for translation into English.

English sentences for translation into French.

4. German.

A passage will be given from Schiller's *Revolt of the Netherlands*, with questions on the parsing, and the historical or geographical allusions.

A passage from a German Newspaper for translation into English.

English sentences for translation into German.

5. Mathematics.

Euclid, Books I. II.

Arithmetic.

Algebra to Simple Equations inclusive.

This amount of knowledge will enable a Candidate to pass in this subject.

Questions will also be set in Euclid, Books III. IV. VI., in Quadratic Equations, Progressions, and Proportion, Plane Trigonometry not beyond the Solution of Triangles, the use of Logarithms, Mensuration, and Practical Geometry.

6. Mechanics and Mechanism.

The questions on Mechanics will be chiefly of a practical character, and will not extend beyond the Paralle-

logram of Forces, the Centre of Gravity, and the Mechanical Powers.

The questions on Mechanism will be confined to the Mechanism of the Steam Engine.

The answers must be illustrated by diagrams or drawings.

Great importance will be attached to good drawing.

7. Chemistry.

Questions will be set on the elementary facts of Chemistry.

Solutions will be given to be tested, containing each not more than one acid and one base.

8. Botany and Zoology.

Questions will be set on the Classification of Plants and Animals, their uses, and Geographical distribution.

British Plants and parts of Plants will be given for description.

IV. Candidates may also offer themselves for examination in

1. Drawing from the Flat, from Models, from Memory, and in Perspective.
 2. The Grammar of Music.
-

The names of the successful Candidates will be arranged in three Divisions; those in the first Division will be placed in the order of merit; those in the second and third Divisions alphabetically.

After each successful Candidate's name will be inserted his Age, the place of his Residence, and the School (if any) from which he comes to attend the Examination.

The Certificate given to each successful Candidate will specify the subjects in which he has satisfied the Examiners.

The fact that a Candidate has passed the Examination in the Rudiments of Faith and Religion will be entered on his Certificate, although it will not affect his place on the List.

EXAMINATION OF SENIOR CANDIDATES.

(For the Title of Associate in Arts.)

Candidates must be under Eighteen years of age on the day when the Examination begins.

I. All Candidates at this Examination will be required to satisfy the Examiners in

1. Analysis of English sentences and parsing, and correction of faulty sentences.
2. A short English composition.
3. Arithmetic.
4. Geography.

Every Candidate will be required to draw from memory an outline Map of some country in Europe to be named by the Examiners, showing the boundary lines, the chief ranges of mountains, the chief rivers, and the chief towns.

Questions will also be set in Geography.

5. The outlines of English History : that is, the succession of Sovereigns, the chief events, and the characters of the leading men in each reign.

* II. The Examination in the Rudiments of Faith and Religion will consist of questions in

1. The Historical Scriptures of the Old Testament to the Death of Solomon.
2. The Gospels of St. Matthew and St. John, and the Acts of the Apostles.

Those who offer themselves for examination in Greek will be expected to answer questions on the same parts of the Greek Testament.

3. The Catechism, the Morning and Evening Services, and the Litany ; and the outlines of the History of the Book of Common Prayer.
-

III. Every Candidate will also be required to satisfy the

* This Examination will not be required of any Candidate whose Parents or Guardians shall have declined it on his behalf.

Examiners in two at least of the Sections marked A, B, C, D ; or in one of those four and in one of those marked E, F.

SECTION A.—*English.*

This will include questions in

1. English History, from the battle of Bosworth Field to the Restoration ; and the outlines of the History of English Literature during the same period.
2. Shakspeare's King Lear, and Bacon's Essays.
3. The outlines of Political Economy and English Law.

The Examination will not extend beyond the subjects treated of in the first book of Smith's Wealth of Nations, and the first volume of Blackstone's Commentaries.

4. Physical, Political, and Commercial Geography.

A fair knowledge of one of these four classes of subjects will enable a Candidate to pass in this Section.

SECTION B.—*Languages.*

1. Latin.
2. Greek.
3. French.
4. German.

A fair knowledge of one of these languages will enable a Candidate to pass in this Section.

SECTION C.—*Mathematics.*

1. Pure Mathematics.
2. Practical Mechanics (including Mechanism) and Hydrostatics mathematically treated, Surveying, and Navigation.

Algebra to the end of Quadratic Equations and Four Books of Euclid will enable a Candidate to pass in this Section.

SECTION D.—*Physics.*

1. Natural Philosophy.

Great importance will be attached to good Mechanical drawing.

2. Chemistry.

Questions will be set on the facts and general principles of Chemical Science.

There will be a practical examination in the elements of Analysis.

3. Vegetable and Animal Physiology.

Questions will be set on Vegetable Physiology in general, and on the functions of Vertebrata in Animal Physiology.

Parts of plants and bones of Vertebrata will be given for description.

Great importance will be attached to good Botanical and Anatomical drawing.

A fair knowledge of one of these classes of subjects will enable a Candidate to pass in this Section; but in all cases a practical acquaintance with the subject-matter will be indispensable.

SECTION E.—*Drawing and Architecture.*

1. Drawing from the Flat, from Models, from Memory, and in Perspective; and Drawing of Plans, Sections, and Elevations.
2. Design in pen-and-ink, and in colour.
3. The History and Principles of the Arts of Design.

A fair degree of skill in free-hand drawing will be required in order that a Candidate may pass in this Section.

SECTION F.—*Music.*

1. The Grammar of Music.
2. The History and Principles of Musical Composition.

The Elements of Thorough Bass will be required in order that a Candidate may pass in this Section.

Separate lists of those who distinguish themselves will be published for each of the Sections A, B, C, D, E, F, arranged in two Divisions.

The names in each First Division will be arranged in order of merit; those in each Second Division alphabetically.

The names of the other successful Candidates will be printed in a general alphabetical List.

After each successful Candidate's name will be inserted his Age, the place of his Residence, and the School (if any) from which he comes to attend the Examination.

Every Candidate who passes will receive the Vice-Chancellor's Certificate conferring the title of Associate in Arts, and specifying the subjects in which he has satisfied the Examiners.

The fact that a Candidate has passed the Examination in the Rudiments of Faith and Religion will be entered on his Certificate, although it will not affect his place on the List.

Place of Examination.

The Examination will be held in Oxford, and simultaneously in other places, if it be requested, and found expedient.

Local Committees wishing to have an Examination held in their several districts may obtain all necessary information from the Rev. J. E. SEWELL, New College, Oxford.

Time of applying.

Candidates desirous of being examined at Oxford must apply on or before the Tenth of April, 1858.

Local Committees desirous of having Examinations held in their several districts must apply on or before the 1st of March, 1858, specifying the probable number of their Candidates.

The names of these Candidates must be transmitted to the Rev. J. E. SEWELL on or before the 10th of April, 1858.

Fees.

Every Candidate at the Junior Examination will be required to pay a Fee of 10s.

Every Candidate at the Senior Examination will be required to pay a Fee of 30s.

These Fees must be paid on or before the 10th of April, 1858.

NOTICE FOR LOCAL EXAMINATIONS.

1. The Examination will be holden this year at Oxford ; and also at the following places,

	London,	
Bath,	Cheltenham,	Liverpool,
Bedford,	Exeter,	Manchester,
Birmingham,	Leeds,	Southampton,

2. The Examination will commence in each place on Monday the 21st of June, at Two o'Clock, and will be continued from day to day until it be completed.

3. Candidates desirous of being Examined at Oxford are directed to apply to the Secretary, the Rev. J. E. SEWELL, New College, Oxford, on or before the 10th of April.

4. Candidates desirous of being examined at any of the other places above mentioned are directed to apply to the Secretary of the Local Committee in such place.

5. The Names of Candidates registered in the several Districts, together with the Fees, must be transmitted through the Local Committees to the Secretary at Oxford, on or before the 10th of April.

6. Each Candidate will be required to fill up and return a printed Form, which will be supplied by the Secretaries at the respective places.

7. The Fees (£1 10s. for the Senior Examination, or 10s. for the Junior Examination) must be paid within the time limited for receiving the Names of Candidates.

The Fees, if sent by Post, must be paid by Cheque or by Post Office Order, *and not in coin or stamps.*

8. Local Secretaries : through whom the Subjects of Examination and other necessary information may be obtained.

OXFORD	Rev. J. E. Sewell, New College.					
LONDON	Dr. C. H. Pinches, Clarendon House, Kennington Road, Lambeth, S.					
BATH	<table> <tr> <td>{ W. Long, Esq.</td><td rowspan="2">{ Guildhall, Bath.</td></tr> <tr> <td>{ J. H. Cotterell, Esq.</td></tr> </table>	{ W. Long, Esq.	{ Guildhall, Bath.	{ J. H. Cotterell, Esq.		
{ W. Long, Esq.	{ Guildhall, Bath.					
{ J. H. Cotterell, Esq.						
BEDFORD	<table> <tr> <td>{ Rev. William Alliot,</td><td rowspan="2">{ Bedford, Beds.</td></tr> <tr> <td>{ Bradford Rudge, Esq.</td></tr> </table>	{ Rev. William Alliot,	{ Bedford, Beds.	{ Bradford Rudge, Esq.		
{ Rev. William Alliot,	{ Bedford, Beds.					
{ Bradford Rudge, Esq.						
BIRMINGHAM	C. T. Saunders, Esq., 41 Cherry Street, Birmingham.					
CHELTENHAM .	<table> <tr> <td>{ Dr. Humphreys, LL. D., Head Master of the Grammar School,</td><td rowspan="2">{</td></tr> <tr> <td>{ Cheltenham.</td></tr> <tr> <td>{ W. J. Sansbury, Esq. (Assistant Secretary.)</td><td></td></tr> </table>	{ Dr. Humphreys, LL. D., Head Master of the Grammar School,	{	{ Cheltenham.	{ W. J. Sansbury, Esq. (Assistant Secretary.)	
{ Dr. Humphreys, LL. D., Head Master of the Grammar School,	{					
{ Cheltenham.						
{ W. J. Sansbury, Esq. (Assistant Secretary.)						
EXETER	T. D. Acland, Esq., Broadgate, Exeter.					
LEEDS	Rev. C. H. Collier, St. Luke's Parsonage, Leeds.					
LIVERPOOL ..	N. Waterhouse, Esq., 5 Rake Lane, Liverpool.					
MANCHESTER	E. W. Makinson, Esq., Higher Broughton School, Manchester.					
SOUTHAMPTON	Rev. Alfred Sells, Cumberland Place, Southampton.					

LIST OF EXAMINERS.

Rev. W. Thomson, D.D., Provost of Queen's College	}	<i>Rudiments of Faith and Religion.</i>
Ven. B. Harrison, M.A., Ch. Ch., Archdeacon of Maidstone		
F. R. Sandford, Esq., M. A., Balliol College, Council Office	}	<i>Preliminary Examination.</i>
T. Walrond, Esq., M.A., Ball. Coll., Civil Service Commission		
F. J. Headlam, Esq., M. A., University College, Civil Service Commission		
Rev. S. Clark, M. A., Magdalen Hall, Principal of the Training College, Battersea	}	<i>English History and Literature.</i>
Rev. C. P. Chretien, M. A., Fellow and Tutor of Oriel Coll.		
M. Bernard, Esq., B.C.L., Trinity College		
Rev. A. P. Stanley, M. A., Ch. Ch., Regius Professor of Ecclesiastical History	}	<i>Higher English Paper.</i>
Rev. T. F. Henney, M. A., Fellow and Tutor of Pemb. Coll.	}	<i>Latin.</i>
Rev. W. B. T. Jones, M. A., Tutor of University College . .		
Very Rev. A. P. Saunders, D.D., Ch. Ch., Dean of Peterborough		<i>Greek.</i>
Very Rev. H. G. Liddell, D.D., Dean of Christ Church . .		<i>Higher Classical Paper.</i>
M. Jules Bué, French Teacher in the Taylor Institution. . . .		<i>French.</i>
M. Bertram		<i>German.</i>
W. Spottiswoode, Esq., M. A., Balliol College.	}	<i>Mathematics.</i>
H. J. S. Smith, Esq., M. A., Fellow and Tutor of Ball. Coll.		
Rev. G. S. Ward, M. A., Mathematical Lecturer of Magd. Hall.		
W. F. Donkin, Esq., M. A., University College, Savilian Professor of Astronomy.	}	<i>Mechanics.</i>
Rev. H. Highton, M. A., Queen's College		<i>Natural Philosophy.</i>
B. C. Brodie, Esq., B. A., Ball. Coll., Professor of Chemistry		<i>Chemistry.</i>
T. K. Chambers, Esq., D. M., Ch. Ch.		<i>Physiology.</i>
J. Ruskin, Esq., M. A., Ch. Ch.	}	<i>Drawing, including</i> 1. <i>Free Hand</i> <i>Drawing,</i> 2. <i>Perspective,</i> 3. <i>Design,</i> 4. <i>Architectural</i> <i>Drawing.</i>
W. Dyce, Esq., R. A.		
G. Richmond, Esq., R. A.		
F. P. Cockerell, Esq.		
S. Evans, Esq., Eton College		
Rev. Sir F. G. Ouseley, Bart., M. A. and D. Mus., Ch. Ch., Professor of Music	}	<i>Music.</i>
J. Hullah, Esq.		
C. S. Parker, Esq., M. A., Fellow and Assistant Tutor of University College.		
Rev. J. Barmby, B. D., Fellow and Mathematical Lecturer of Magdalen College.		
C. H. Pearson, Esq., M. A., Fellow of Oriel College.		

PLACE.	DELEGATES APPOINTED TO OPEN THE EXAMINATION.	EXAMINERS APPOINTED TO CONDUCT THE EXAMINATION.
OXFORD.	The Vice-Chancellor.	The Dean of Peterborough.
LONDON.	The Provost of Oriel.	{ F. R. Sandford, Esq. T. Walrond, Esq. C. H. Pearson, Esq.
BATH.	T. D. Acland, Esq.	Rev. G. S. Ward.
BEDFORD.	Rev. H. L. Mansel.	Rev. J. Barmby.
BIRMINGHAM.	The Master of Pembroke.	H. J. S. Smith, Esq.
CHELTENHAM.	Rev. G. Rawlinson.	Rev. W. B. T. Jones.
EXETER.	The Master of Balliol.	C. S. Parker, Esq.
LEEDS.	Rev. Dr. Hook.	Rev. C. P. Chretien.
LIVERPOOL.	Rev. W. Hedley.	The Provost of Queen's.
MANCHESTER.	Rev. J. E. T. Rogers.	Rev. H. Highton.
SOUTHAMPTON.	Rev. R. Walker.	Rev. T. F. Henney.

EXAMINATION PAPERS.

JUNIOR CANDIDATES.

I.

I.
PRELIMINARY
EXAMINATION.

* I. 1. *Reading aloud.*

A Passage from Southey's Life of Nelson.

I. 2. *Passage for Dictation.*

Charles was in the twenty-fifth year of his age when he ascended the throne. His features were regular, and he would have been handsome if it had not been for the melancholy cast of his countenance. His deportment was exceedingly dignified. During the early part of his life it was somewhat ungracious from its too great stateliness and formality: but this wore off as he grew older. In the morality and regularity of his conduct he set a good example to his court and people: he was moderate in all his habits and expenses, humane and gentle in his disposition, a man of kind affections, and a most tender father and husband. His mind was highly cultivated, and he had extraordinary talents for reasoning and argument: but through his indecision of character, he seldom acted as wisely as he could talk, and was often swayed by the counsels of men of far inferior capacity.

I. 3. *Analysis, Parsing, &c.*

[N. B. All Candidates are required to satisfy the Examiners in this Paper.

Four questions at least should be attempted, of which the first must be one.]

1. Analyse the following passage, and parse fully the words printed in italics:—

Near *yonder* copse, where *once* the garden *smil'd*,
And *still* where many a garden flower grows *wild*,
There, *where* a few *torn* shrubs the place disclose,
The village *preacher's* modest mansion *rose*.

* The numbers prefixed to each Paper correspond with the numbers prefixed to the subjects in the REGULATIONS.

I.
PRELIMINARY
EXAMINATION.

2. Give the plurals of the following Nouns :—

house	mouse	grouse	sheep
foot	child	penny	ox
fox	people	city	

3. What is a Pronoun? How many kinds of Pronouns are there? Give examples of each kind; and write out one or two short sentences to shew the use of Pronouns.

4. Give the past tense (Indicative) and past participle of each of the following Verbs :—

arise	begin	drink
fly	ring	seat
spring	tear	work

5. Explain, giving examples, the force of the following terminations :—

—ment	—ist	—ly
—ble	—ate	—en

6. Give the derivation of

loyalty	humble	husband
pensive	away	whisper
soldier	ruin	peasant.

7. What allusions are there in “The Deserted Village” to the poet Goldsmith’s own history, or that of his friends?

I. 4. *Short English Composition.*

[N. B. All Candidates are required to satisfy the Examiners in this Paper.]

Write a short Essay on *one* of the following subjects :—

1. *On Coal*, and the advantages which a country derives from a plentiful supply of it.

Or,

2. On the Habits and Uses of any *one* of the domestic animals.

Or,

3. A brief Sketch of the Life of Oliver Goldsmith.

I. 5. *Arithmetic (Elementary).*I.
PRELIMINARY
EXAMINATION.[N. B. All Candidates are required to satisfy the Examiners in
this Paper.]

1. Write down in figures :

(1) Seven hundred and nineteen thousand and two.

(2) Five million thirty-one thousand and ninety.

(3) Four hundred and nine million thirty-one thousand one hundred.

2. Add 73945¹

43267

849130

693513

79484

107325

3. Add

£	s.	d.
413	18	9

129	5	2½
-----	---	----

93	17	4¾
----	----	----

203	1	11¼
-----	---	-----

68	11	10¼
----	----	-----

121	0	1
-----	---	---

4. From 9320541

Take 937465

5. From

£	s.	d.
93714	10	6

Take 7658 13 9½

I.
PRELIMINARY
EXAMINATION.

The working of the following is to be shewn up.

6. Multiply 59730215 by 7016.
7. Multiply 5682*l.* 15*s.* 6¼*d.* by 9.
8. Multiply 4645*l.* 11*s.* 2½*d.* by 75.
9. Divide 5933905674 by 9.
10. Divide 732540408423 by 273.
11. Divide 21240*l.* 4*s.* by 96.
12. Divide 35746*l.* 13*s.* 6½*d.* by 316.

I. 6. *Geography.*

[N. B. All Candidates are required to satisfy the Examiners in this Paper.

Four questions at least should be attempted, of which the first must be one.]

1. On the accompanying Map of England insert the names of the chief Bays and Headlands; trace the course of six important Rivers, and mark the position of Plymouth, Liverpool, Birmingham, Hull, Bangor, Boston, Hastings, Hereford, Oxford, Canterbury.

2. Draw a Map of Africa, shewing its divisions, and marking the most important places.

3. Explain, giving examples of each, the following Geographical terms :

Peninsula,	Table-land,
Isthmus,	Watershed,
Estuary,	Delta.

4. What are the chief seats, in Great Britain, of the
 Woollen,
 Linen,
 Hardware,
 Glass,
 and Carpet manufactures ?

5. Selecting *one* of the chief Rivers of Continental Europe, describe its course, name the countries through which it passes, the most remarkable places on its banks, and the Sea into which it falls.

6. Describe accurately the situation of the following places, and mention anything of interest, which you may remember, connected with them :

St. Andrew's,	Baltimore,
Londonderry,	Sierra Leone,
Dantzic,	Goa,
Nice,	Chusan.

I.
PRELIMINARY
EXAMINATION

I. 7. *Outlines of English History.*

[N. B. All candidates are required to satisfy the Examiners in this paper.

Four questions at least should be attempted : including some parts of questions 4 and 5.]

1. Name, in their order, the Kings of England from 1400 to 1700.

2. Trace the descent of George I. from Henry VII.

3. What was the origin of the Wars of the Roses? How long did they last, and how and when did they come to an end?

4. State briefly the occasions of the following battles, the parties engaged in them, and their results :

Hastings,	Bunker's Hill,
Culloden,	Sobraon,
Naseby,	Vittoria.
Agincourt,	

5. In what reigns did the following persons live, and for what are they respectively famous?

Francis Bacon,	Milton,
Wolsey,	Lord Chatham,
Thomas A'Becket,	Warren Hastings.
Sebastian Cabot,	

6. Relate the circumstances which gave rise to *The Petition of Right*, and give the substance of it.

II.

II.
RUDIMENTS
OF FAITH
AND
RELIGION.

The Rudiments of Faith and Religion.

1. Quote the sentence passed after the Fall upon the Serpent, the Woman, and the Man.
 2. Trace the journeyings of Abraham and Jacob.
 3. Of what is Abraham an example? Give instances out of his life.
 4. Describe the position of Mount Sinai. Into what great sin were the Israelites betrayed at that place? and how did they fall into it?
 5. What was the Passover? Why was it instituted? What ceremonies were observed at it?
 6. "The kingdom of heaven is at hand." Whose words are these? Explain their meaning.
 7. "Art thou he that should come, or do we look for another?" Whose question was this? When, and with what purpose, was it asked?
 8. What is taught by the Parables of the Sower, the Wheat and Tares, and the Wedding Garment?
 9. How, and on what occasions, were the Ten Commandments summed up by our Lord? Is there any reference to this in the Catechism?
 10. Describe the Temptation of our Lord, as related by St. Matthew. Whence are the passages taken which our Lord quotes in answer to the Tempter?
 11. What prophecies of the Old Testament are quoted by St. Matthew respecting the Birth, Divine Nature, Ministry, and Death of our blessed Lord?
 12. On what occasions did St. Paul relate the history of his Conversion? State its circumstances, and shew its importance.
 13. Describe, in the words of Scripture, the way of life of the Christians at Jerusalem just after the sending of the Holy Spirit.
 14. Who were Festus and Agrippa before whom St. Paul appeared?
-

15. What do you mean by a Litany? State briefly the several parts of the Litany in the Book of Common Prayer.

16. "Give us this day our daily bread, And forgive us our trespasses, as we forgive them that trespass against us. And lead us not into temptation." Illustrate these three petitions from the words of our Lord.

17. What are the three parts of the baptismal vow? Quote passages of Scripture to illustrate your answer.

18. "The Communion of Saints," "The Forgiveness of Sins." Explain these articles of the Creed.

19. "Thou shalt do no murder." How does our blessed Redeemer enlarge this commandment? Explain the principle.

20. What place do the Sentences with which Morning and Evening Prayer commence, occupy in relation to the Service which follows? From what parts of Scripture are any of them taken?

III.

III. I.—*Latin.*

III. LATIN.

1. Translate one of the two following passages :

Hæc quum animadvertisset, convocato consilio, omniumque *ordinum* ad id consilium adhibitis centurionibus, vehementer *eos* incusavit: 'primum, quod, aut quam in partem, aut quo consilio ducerentur, sibi quærendum aut cogitandum putarent. Ariovistum, se consule, cupidissime populi Romani amicitiam adpetisse; cur hunc tam temere quisquam ab officio discessurum judicaret? Sibi quidem persuaderi, cognitis suis postulatis atque æquitate conditionum perspecta, cum neque suam, neque populi Romani gratiam repudiaturum. Quod si furore atque amentia impulsus bellum intulisset, quid tandem vererentur? aut cur de sua *virtute*, aut de ipsius diligentia desperarent? Factum ejus hostis periculum *patrum* nostrorum memoria, quum, Cimbris et Teutonis a C. Mario pulsus, non minorem laudem *exercitus*, quam ipse imperator, meritus videbatur: factum etiam nuper in Italia servili tumultu, quos

III.
LATIN.

tamen *aliquid* usus ac disciplina, quam a nobis accepissent, sublevarent.—*Cæsar. Bell. Gall. I. 40.*

Horum adventu tanta rerum commutatio facta est, ut nostri, etiam qui vulneribus confecti procubuissent, scutis innixi, prælium redintegrarent; tum *calones*, perterritos hostes conspicati, etiam *inermes* armatis occurrerent; equites vero, ut turpitudinem fugæ virtute delerent, omnibus in *locis* pugnae se legionariis *militibus* præferrent. At hostes, etiam in extrema *spe* salutis, tantam virtutem præstiterunt, ut, quum primi eorum cecidissent, proximi jacentibus insisterent atque ex eorum corporibus pugnarent; his dejectis et coacervatis *cadaveribus*, qui superessent, ut ex tumultu, tela in nostros conjicerent et pila intercepta remitterent: ut non nequidquam tantæ virtutis homines judicari deberet ausos esse transire latissimum flumen, adscendere altissimas ripas, subire iniquissimum locum: quæ facilia ex difficillimis animi magnitudo redegerat.—*Cæsar. Bell. Gall. II. 27.*

2. Decline the words in Italics in the passage which you translate.

3. Parse the following verbs, giving the infinitive, perfect, and supine (if any) of each:

Animadvertisset, adhibitis, quærendum, discessurum, intulisset, possit, congressi, procubuissent, innixi, occurrerent, præstiterunt, insisterent, superessent, ausos, transire, redegerat.

4. Draw a map of Gaul, distinguishing the territories of the Belgæ, Celtæ, and Aquitani. Place the Alps, the Jura mountains, and the Lacus Lemanus, and trace the course of the following rivers, giving the modern name of each: Rhenus, Rhodanus, Sequana, Liger, Matrona, Garumna.

5. Place in your map the following tribes: Helvetii, Ædui, Veneti, Rauraci, Allobroges, Morini, Seduni, Sequani, Treveri, Vocontii.

6. State briefly what you know of the following persons: C. Marius, T. Labienus, Ariovistus, Divitiacus, P. Crassus.

Translate into English one or both of the following passages :—

III.
LATIN.

Vir primo imperii tempore optimis principibus, ultimo mediis comparandus. Innumerae in eo animi corporisque virtutes claruerunt : militaris gloriae appetentissimus, fortuna in bellis prospera fuit ; verum ita ut non superaret industriam. Nam etiam Gothos, post civile bellum, varie profligavit, pace ad postremum data ; ingentemque apud barbaras gentes memoriae gratiam collocavit.

Barbam Capellæ cum impetrassent ab Jove,
Hirci mærentes indignari cœperunt,
Quod dignitatem feminæ æquassent suam.
Sinite, inquit, illas gloria vana frui,
Et usurpare vestri ornatum muneris,
Pares dum non sint vestræ fortitudinis.
Hoc argumentum monet, ut sustineas, tibi
Habitu esse similes, qui sunt virtute impares.

Translate into Latin :—

After the kings had been driven from the city, the Romans first took up arms for liberty. For Porsena king of the Etrurians was at hand with a vast army, and attempting to restore the Tarquins by force. Though pressed by arms and famine, they held out against him, and at last struck him with such wonder, that he made a treaty of friendship with them of his own accord. Then occurred those marvels achieved by Horatius, Mutius, and Clœlia : which at this day would appear idle tales, unless they were in the records.

III.
GREEK.

III. 2.—Greek.

1. Translate into English—

Κύρος μὲν οὖν οὕτως ἐτελεύτησεν, ἀνὴρ ὢν Περσῶν τῶν μετὰ Κύρον τὸν ἀρχαῖον γενομένων βασιλικώτατός τε καὶ ἄρχειν ἀξιώτατος, ὥς παρὰ πάντων ὁμολογεῖται τῶν Κύρου δοκούντων ἐν πείρᾳ γενέσθαι. Πρῶτον μὲν γὰρ παῖς ἔτι ὢν, ὅτε ἐπαιδεύετο καὶ σὺν τῷ ἀδελφῷ καὶ σὺν τοῖς ἄλλοις παισὶ, πάντων πάντα κράτιστος ἐνομιζέτο. Πάντες γὰρ οἱ τῶν ἀρίστων Περσῶν παῖδες ἐπὶ ταῖς βασιλέως θύραις παιδεύονται· ἔνθα πολλὴν μὲν σωφροσύνην καταμάθοι ἂν τις, αἰσχρὸν δ' οὐδὲν οὔτε ἀκοῦσαι, οὔτ' ἰδεῖν ἔστι.

2. Parse the words ἐτελεύτησεν, ὁμολογεῖται, ἐπαιδεύετο, γενέσθαι, ἰδεῖν, and πάντων, πάντα, in the phrase πάντων πάντα κράτιστος.

3. How was Cyrus killed? Describe the battle of Cunaxa, and give an account of the troops on both sides.

4. Who is meant by Κύρον τὸν ἀρχαῖον? What do you know of him?

5. What was the proper country of the Persians, and what was at this time the geographical extent of their empire?

6. Assign the Second Aorists of the following verbs : αἰσθάνομαι, ἀνδάνω, εὐρίσκω, ὀφείλω, γίγνομαι, μανθάνω, with the Futures of ἀπεχθάνομαι, ἔρομαι, ἔχω and γιγνώσκω.

7. Note the peculiarities of the following :

φίλας περὶ χεῖρε βαλόντε. βασιλῆς.....πεπνυμένω ἄμφω.

Decline βασιλεύς, and give the principal tenses of βάλλω.

8. Give the genitive of θρίξ, hair, and decline ναῦς, ship, throughout.

9. Translate into English one or both of the two following passages :—

Ταῦτα οὖν φιλοπολέμου δοκεῖ ἀνδρὸς ἔργα εἶναι, ὅστις, ἐξὸν μὲν εἰρήνην ἄγειν ἀνευ αἰσχύνης καὶ βλάβης αἰρεῖται πολεμεῖν· ἐξὸν δὲ ῥαθυμεῖν βούλεται πονεῖν ὥστε πολεμεῖν· ἐξὸν δὲ χρήματα ἔχειν ἀκινδύνως αἰρεῖται πολεμῶν μείονα ταῦτα ποιεῖν. Ἐκεῖνος δὲ, ὥσπερ εἰς ἡδονήν, ἤθελε δαπανᾶν εἰς πόλεμον· οὕτω μὲν οὖν φιλοπόλεμος ἦν. Πολεμικὸς δὲ αὐτῇ εἶναι ἐδόκει, ὅτι φιλο-

κίνδυνός τε ἦν, καὶ ἡμέρας καὶ νυκτὸς ἄγων ἐπὶ τοὺς πολεμίους,
καὶ ἐν τοῖς δεινοῖς φρόνιμος, ὥς οἱ παρόντες πανταχοῦ πάντες
ὠμολόγουν.

III.
GREEK.

ἌΩς φάτο· τὴν δ' οὔτι προσέφη νεφεληγερέτα Ζεὺς.
ἀλλ' ἀκέων δὴν ἦστο· Θέτις δ', ὥς ἤψατο γούνων,
ὥς ἔχετ' ἐμπεφυῖα, καὶ εἶρετο δεύτερον αὐτὶς·
νημερτὲς μὲν δὴ μοι ὑπόσχεο, καὶ κατάνευσον,
ἦ ἀπόειπ'· ἐπεὶ οὐ τοι ἔπι δέος· ὄφρα εὐ εἰδῶ,
ὅσσον ἐγὼ μετὰ πᾶσιν ἀτιμοτάτη θεός εἰμι.

10. Translate into Greek :

In the course of the night (πρόειμι used with νυκτὸς in the
genitive absolute).

To give and receive pledges (πίστα).

To injure the country (verb ποιέω).

Desire above all things,

In front of the king,

In sight of the gods,

In reference to } these things,

In addition to }

(prepositions πρὸ and πρὸς).

III. 1. 2. *Higher Classical Paper.*

1. Translate into Latin Elegiac Verse :—

III. .
HIGHER
CLASSICAL
PAPER.

The first mass of things was confounded without order ;

sunt facies

And stars, earth, sea, wore one aspect.

Presently heaven was placed upon earth : the ground was girt by sea :

partes

And into its own quarter void chaos retired.

The woodland received wild beasts, the air birds in possession :

habendus

In liquid water ye fishes lurked.

deliteo

Then was the human race roaming in lonely lands :

id

merus

rudis

pectus

And it was simple strength, and an uncivilized mind.

The wood was its home, the herb its food, the leaves its bed :

alter

And now for a long time his neighbour was known to no man.

III.
HIGHER
CLASSICAL
PAPER.

II. Translate into Latin Prose :—

There, by the advice of Postumius, Minucius engaged the enemy. Then, after the battle had continued doubtful till late in the day, Postumius suddenly attacked their wearied lines with fresh legions; and so, the flight of the enemy being impeded by fatigue and by wounds, they were cut to pieces, one and twenty standards were taken, and then the conquerors made straight for the camp of the Samnites. Here the two victorious armies, attacking the enemy, who were already panic-stricken by reports of the battle, routed them and put them to flight. Statius Gellius, general of the Samnites, with many other persons, and both the camps were taken; Bovianum, of which the siege began next day, was quickly taken; and the consuls, deriving great glory from their conduct of affairs, had a triumph decreed them.

III. Translate :—

1. ———σῖγ', Ἄδραστ', ἔχε στόμα,
καὶ μὴ' ἐπὶ προσθε τῶν ἐμῶν τοὺς σοὺς λόγους
θῆς· οὐ γὰρ ἦκει πρὸς σέ κηρύσσων ὁδε,
ἀλλ' ὥς ἐμ'· ἡμᾶς ἀποκρίνασθαι χρεών.
καὶ πρῶτα μὲν σε πρὸς τὰ πρῶτ' ἀμείψομαι·
οὐκ οἶδ' ἐγὼ Κρέοντα δεσπόζοντ' ἐμοῦ,
οὐδὲ σθένοντα μείζον, ὥστ' ἀναγκάσαι
δρᾶν τὰς Ἀθήνας ταῦτ'· ἄνω γὰρ ἂν ῥέοι
τὰ πράγμαθ' οὕτως, εἰ' πιταξόμεσθα δῆ.
πόλεμον δὲ τοῦτον οὐκ ἐγὼ καθίσταμαι,
ὅς οὐδὲ σὺν τοῖσδ' ἦλθον ἐς Κάδμου χθόνα.
νεκροὺς δὲ τοὺς θανόντας, οὐ βλάπτων πόλιν,
θάψαι δικαίῳ, τὸν Πανελλήνων νόμον
σώζων.

Euripides.

2. Quod ubi audivit Consul, extemplo filium aversatus concionem classico advocari jussit. Quæ ubi frequens convenit, “Quando,” inquit, “tu, T. Manli, neque imperium consulare, neque majestatem patriam veritus. adversus edictum nostrum extra ordinem in hostem pugnasti, et, quantum in te fuit, disciplinam militarem, qua stetit ad hanc diem Romana res, solvisti, meque in eam necessitatem adduxisti ut aut rei publicæ mihi

aut mei meorumque obliviscendum sit, nos potius nostro delicto plectemur, quam res publica tanto suo damno nostra peccata luat : triste exemplum, sed in posterum salubre juventuti erimus."—*Livy*.

III.
HIGHER
CLASSICAL
PAPER.

IV. Questions.

1. Distinguish between *verecor ut res sit*, and *verecor ne res sit*.

2. What cases does *similis* govern, and what is the difference of sense with each case?

3. What tenses are subjoined by *ut* to the Perfect Indicative, and how do you know when one or the other is to be used?

4. What is the difference in sense and construction between *quum* causal and *quum* temporal?

5. When is the ablative *with a* or *ab*, and when is the ablative *without a* or *ab* to be used after Verbs?

6. What is the meaning of Verbs Deponent, Inceptive, Frequentative, Neuter-passive? Give all the examples of each you can remember.

7. When are the English words *after* and *before* to be translated by *post* and *postquam*,—by *ante*, *prius*, and *antequam*, *priusquam*?

III. 3.—*French*.

III.
FRENCH.

[N. B. Candidates are not obliged to translate the whole of the following passage.

But they are expected to translate a part of it; and to answer some of the questions which refer to it.]

Non-seulement le roi, qui rarement prenait^a conseil^b, n'écoula

(a) Prenait

1. Is this a regular verb?

2. How do you know whether it is regular or not?

3. Give the 1st person of the perfect indicative and of the present subjunctive.

4. When is this verb spelt with a double *n*?

(b) Prenait conseil

5. Why not prenait *le* conseil?

III.
FRENCH.

point cet avis judicieux^c, mais, au grand étonnement de toute l'armée, il quitta le chemin de Moscou, et fit^d marcher au midi vers l'Ukraine, pays des Cosaques, situé entre la petite Tartarie, la Pologne, et la Moscovie. Ce pays a environ cent^e de nos lieues^f du midi au septentrion, et presque autant de l'orient au couchant; il est partagé en deux parties^g à peu près égales par le Borysthène, qui le traverse en coulant du nord-ouest au sud-est; la principale ville^h est Batoryn, sur la petite rivièreⁱ

(c) Cet avis judicieux

6. Parse these words.

7. Why *cet* and not *ce*?8. How do you form the feminine of adjectives ending in *eur*?

9. Translate: This table and those pens.

(d) Fit

10. What tense of what verb?

11. What is the 1st person singular present subjunctive?

12. What is the present infinitive?

13. Give the root.

14. Give the termination of the infinitive.

15. What is the present participle?

16. What is the future tense 1st person singular?

17. Account for the additional consonant in the present participle.

18. Account for the irregularity in the future.

(e) E. Name the different accents used over this vowel, and mark them on
colere, bonte, fete.

— Cent

19. When does *cent* take *s*, the mark of the plural?

20. Translate: Three hundred and four men.

(f) Lieue

21. What is the name of the new itinerary measure?

22. What does it mean?

23. How many are there in one *lieue*?

(g) En deux parties

24. Translate: Into two parts—Into two political parties—Into two shares.

(h) Ville

25. Do you follow the rule in pronouncing the word *vill*?

26. What is the rule?

27. Translate: The chief villages.

(i) Rivière

28. Translate: 1. A large river.

2. Rivers are broader and deeper as they come nearer to the sea.

3. This river is very shallow.

de Sem^j. La partie la plus septentrionale de l'Ukraine est cultivée^k et riche; la plus méridionale, située près du quarante-huitième degré, est un des pays les plus fertiles du monde et les plus déserts^l; le mauvais gouvernement y étouffait le bien que la nature s'efforce^m de faire aux hommes. Les habitants de ces cantons de la petite Tartarie ne semailentⁿ ni ne plantaient, parce que les Tartares de Budjack, ceux^o de Péréecop^p, les Moldaves, tous peuples brigands, auraient ravagé^q leurs moissons^r.

III.
FRENCH.

L'Ukraine a toujours aspiré à être libre; mais étant entourée de la Moseovie, des États du Grand Seigneur et de la Pologne, il lui a fallu chercher^s un protecteur, et par conséquent un maître^t dans l'un de ces trois États. Elle se

(j) Sem (a tributary stream of the Desna).

29. Into what river does the Desna fall?

(k) Est cultivée

30. Why is the participle in the feminine gender?

(l) Les plus déserts

31. Translate: Less desolate—So desolate—As desolate as ever.

32. Name one or two of the chief commercial towns of the present time.

(m) S'efforce

33. To what class of pronominal verb does this belong?

34. Go through the past indefinite tense, indicative mood.

(n) Semailent

35. Mood and tense of what verb?

36. How do you know the tense and person?

(o) Ceux

37. What is the singular number, masculine gender?

38. What is the plural number, feminine gender?

(p) Péréecop

39. Where is it situated?

(q) Auraient ravagé

40. Why is the participle not in the plural?

(r) Leurs moissons

41. Translate: My harvest—Our harvests—His application.

42. Can you make a remark on the pronunciation of this word *moisson*?

(s) Il lui a fallu chercher

43. Turn the phrase differently: using the verb *falloir* in the perfect tense, and *chercher* in the proper personal tense.

(t) Maître

44. Why is there an accent over the *i*?

45. Shew it in other words compared with English words.

III.
FRENCH.

mit^u d'abord sous la protection de la Pologne, qui la traita trop en sujette^v; elle se donna depuis au Moscovite, qui la gouverna en esclave autant qu'il le^w put^x. D'abord les Ukranien^ys jouirent du privilège^y d'élire^z un prince sous le nom de général; mais bientôt ils furent dépouillés de ce droit, et leur général fut nommé par la cour de Moscou.—(VOLTAIRE, *Charles XII.*)

(u) Mit

46. Parse this word.

47. How would you know the person without the assistance of the text?

(v) Qui la traita trop en sujette

48. Translate this phrase.

(w) Autant qu'il le put

49. What is the force of *le* in this phrase?

(x) Put

50. Parse this word.

51. How does it come to be *put* in the perfect tense?

52. Name a few verbs where the same alteration takes place.

53. What is that alteration called?

(y) Jouirent du privilège

54. Parse this phrase.

(z) Élire

55. Give the 1st person plural of every simple tense of the indicative, conditional, and subjunctive moods.

Translate into English :—

Le gouverneur d'Aden vient d'adresser un rapport à Londres sur la situation de cette place qui a acquis une importance de premier ordre.

Lorsque les Anglais prirent, en mil huit cent trente neuf, possession d'Aden, qui est devenu le chef-lieu de leurs établissements dans la mer Rouge, sa population n'était que de quinze cents âmes; elle est aujourd'hui de vingt cinq mille âmes, et dans cette évaluation ne se trouvent pas compris les soldats de la garnison, dont l'effectif est d'environ dix neuf cents hommes.

Les défenses de la place, construites par la Compagnie des Indes, sont formidables, et on les augmente encore chaque jour. Depuis quelque temps, plusieurs grandes maisons Anglaises se sont établies à Berbérâh, point situé en face d'Aden, sur lequel se concentre en grande partie le commerce de l'Arabie.—(*Journal des Débats.*)

Translate into French :—

III.
FRENCH.

Will you come out with me?

I wish I could, but I walked twenty miles yesterday, and I must rest to-day.

Which way are you going?

I am going, on this side of the river, as far as Iffley, where I mean to stay a short time.

You must pass by my brother's house, do call for him; he will be very glad to accompany you. When shall you return?

At half-past five.

Henry will go and meet you on your way back.

Make him start in good time. He is the slowest walker I know.

III. 4.—*German.*

III.
GERMAN.

Translate into English :—

Philipp der Zweite war in Allem, was menschlich ist, das Gegenbild seines Vaters. Ehrsuchtig, wie dieser, aber weniger bekannt mit Menschen und Menschenwerth, hatte er sich ein Ideal von der königlichen Herrschaft entworfen, welches Menschen nur als dienstbare Organe der Willkür behandelt und durch jede Äusserung der Freiheit beleidigt wird. In Spanien geboren und unter der eisernen Zuchruthe des Mönchthums erwachsen, forderte er auch von Andern die traurige Einförmigkeit und den Zwang, die sein Charakter geworden waren. Der fröhliche Muthwille der Niederländer empörte sein Temperament und seine Gemüthsart nicht weniger, als ihre Privilegien seine Herrschsucht verwundeten. Er sprach keine andere, als die spanische Sprache, duldete nur Spanier um seine Person und hing mit Eigensinn an ihren Gebräuchen. — *Schiller's Geschichte des Abfalls der vereinigten Niederlande.*

Geographical and Historical Questions.

1. Mention any events in Philip II.'s life which bear out the above description of his character.

2. When and how did the Netherlands fall under the dominion of Spain?

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3. What steps did the Prince of Orange take for the purpose of counteracting the advantages gained by the Spaniards about the year 1578?

4. Give some account of the causes which led to the revolt of the inhabitants of the Netherlands against Philip II.

5. Give the date of the death of the Prince of Orange, and give some account of the circumstances connected with it.

6. Name the more important cities of the various provinces of the Netherlands, and the principal rivers which flow through the country.

7. Give a geographical account of the countries that formed the Spanish empire at the time of the resignation of Charles V.

Translate into English :—

In Skandinavien hat Russland bei einer normalen Weltlage seinen natürlichen Erbfeind und den natürlichen Bundesgenossen eines mächtigen Deutschlands zu suchen. Russland hat den unnatürlichen Bund mit Dänemark befestigt, es bestimmt mit unbeschränkter Gewalt die dänische Politik, und—seltsam genug!—die erbittertsten aller Feinde Russlands, die Schweden, haben für russische Zwecke gegen uns, ihre natürlichen Bundesgenossen, gefochten. Die skandinavischen Staaten sind aus ihrer natürlichen Weltlage herausgedrängt; ihre Politik ist unselbstständig geworden und in die Bahnen der russischen hineingelenkt. Nicht anders ist es im Süden. Die Romanen erhoben sich in der Moldau und der Walachei; Russland warf sie nieder und machte mitten im Frieden eine förmliche Eroberung an diesen zwei grossen und mächtigen Staaten.—*Kölnische Zeitung*.

Translate into German * :—

1. Mercury was the son of Jupiter and Maia.—The lion is the king of all beasts.—God is the Creator of heaven and earth.—I have read with much pleasure the German letter which you wrote to me, and I understood everything in it.—I am very sorry, my dear friend, that I shall not have the

* Those who can write the German character with facility are at liberty to do so.

pleasure of spending the afternoon with you.—Have you had time to copy the passages which I gave you?—No, but I will copy them when my brother copies his.—When did you return?—I returned before my aunt returned?—I prefer what you prefer.—Why do you go away?—I go away because my father goes away.—

2. Have you any more sugar?—I have no more. Has he any more good water?—He has no more. Have I any more good books?—You have not any more good books, but a few more sheets of paper. What has she more?—She has a few more golden pens. Will you give me another cup of tea?—I have only one more to give.—Thank you!

3. Is your father at home?—He is gone out. At whose house is your brother?—He is at the house of his uncle. Will you go out?—I have no mind to go out, I wish to remain at home.

4. What book have you?—I have a German book. What books has she?—Very good ones. What paper has he?—Writing-paper.

5. Do you like to study? Do you like walking? Do you like wine? Do you like to learn by heart?—I like to read better than to learn by heart. Are you loved?—We are loved and rewarded. By whom are you praised?—I am praised by my tutors, but my brother is blamed by them, because he is idle and disobedient.

6. When I was a child. When I was in Berlin I studied when my friend played. When were you born? I was born—

7. I am going into the room.—I am in the room.—I am going to the window.—I am standing at the window.—I am going into the country.—I am in the country.

8. When will you send me Schiller's works?—I will send you them to-morrow. Will you send them to me in the country?—I will send them you there. Have you given the horses to your brother?—I have given him them. Do you intend to go to London soon?—I shall go thither to-morrow morning at half-past ten.

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[These Questions were printed on a foolscap sheet of paper, in order to save the Candidates time, as they had only to fill up the blanks with their answers.]

Grammatical Questions.

1. Parse:—

an,	Eigensinn,
blieb,	neun,
finster,	welches,
noch,	sein,
ward,	das,
dass,	entworfen,
war,	sich,

2. Decline the adjective *klein* preceded by the definite article in the

	MASCULINE.	FEMININE.	NEUTER.	PLURAL.
Nom.	<i>klein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>
Gen.	<i>klein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>
Dat.	<i>klein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>
Acc.	<i>klein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>

3. Decline the same adjective preceded by the possessive pronoun *mein* in the

	MASC.	FEM.	NEUT.	PLUR.
Nom. <i>mein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>
Gen. <i>mein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>
Dat. <i>mein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>
Acc. <i>mein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>	<i>klein</i>

5 4. Decline :—

	MASC.	FEM.	NEUT.	PLUR.
Nom. <i>guter</i>	<i>Wein</i>	<i>Suppe</i>	<i>Wasser</i>	<i>Leute</i>
Gen. <i>gut</i>	<i>Wein</i>	<i>Suppe</i>	<i>Wasser</i>	<i>Leute</i>
Dat. <i>gut</i>	<i>Wein</i>	<i>Suppe</i>	<i>Wasser</i>	<i>Leute</i>
Acc. <i>gut</i>	<i>Wein</i>	<i>Suppe</i>	<i>Wasser</i>	<i>Leute</i>

5. Are there any more declensions of the adjective, or not ?

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6. Turn the following singular substantives into the plural by adding, where necessary, the letter or letters &c. which they require, and state some general rules which may serve as a guide in forming the plural of substantives :

Tisch	Glas	Spiegel
Hut	Bediente	Besen
Buch	Auge	Töchterlein
Nuss	Gabel	Hammer
Hand	Kammer	Gräfinn
Mädchen	Zunge	König

7. What are the rules for the declension of substantives in the singular and plural?

8. Give the comparative and superlative of the adjectives and adverbs

	COMPARATIVE.	SUPERLATIVE.	COMP.	SUPERL.
bald,				
gut,			viel,	
gern,			lang,	
			hoch,	

9. Give three prepositions which govern the Dative ; three which govern the Accusative ; three which govern the Dative and Accusative ; and four which govern the Genitive.

DATIVE.	ACCUSATIVE.	DATIVE AND ACCUSATIVE.	GENITIVE.

10. Give the first person singular of the present

10. Give the first person singular of the present, imperfect, and perfect of the verbs

PRESENT.	IMPERFECT.	PERFECT.
heissen		
gehen		
ruhen		
mögen		
verlieren		
erschlagen		
zerbrechen		
bedenken		
ausgehen		
zumachen		

11. Give the signification of

der Band,	das Band,
der Schild,	das Schild,
der See,	die See,

12. Distinguish the signification of the following verbs when used

AS SEPARABLE.	AS INSEPARABLE.
durchreisen,	durchreisen,
übersetzen,	übersetzen,
umgehen,	umgehen,

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III. 5.—*Mathematics* (No. 1.)

[The questions in this paper are intended for those Candidates *only* who do not offer themselves for examination in Higher Mathematics.]

Euclid. I, II.

1. Define a point, a straight line, a superficies, a plane rectilineal angle, a square, a gnomon.

2. If two triangles have (1) two sides of the one respectively equal to two sides of the other; (2) the angle included by the two sides of the one equal to the angle included by the two sides of the other: then these triangles shall be equal in every respect; i. e. (1) the base or third side of the one shall be equal to the base or third side of the other; (2) the remaining angles of the one shall be respectively equal to the remaining angles of the other, those angles being equal in each to which the equal sides are opposite; (3) the triangles shall be equal.

3. Draw a straight line at right angles to a given straight line from a given point in the same.

What is the corollary to this proposition?

4. The greater side of any triangle shall be opposite to the greater angle; i. e. if one side of a triangle be greater than another, then the angle opposite to the greater side shall be greater than the angle opposite to the less side.

5. If a straight line cut two parallel straight lines: then it shall make (1) the alternate angles equal to one another; (2) any one of the exterior angles equal to the interior and opposite angle on the same side of the cutting line; (3) the two interior angles on the same side of the cutting line together equal to two right angles.

6. To a given straight line to apply a parallelogram which shall be equal to a given triangle, and have an angle equal to a given angle.

7. If the square described on one of the sides of a triangle be equal to the squares described on the other two sides: then the angle included by these two sides shall be a right angle.

8. If a straight line be bisected, and also divided into two unequal parts: then the rectangle contained by the unequal parts together with the square of the part of the line intercepted between the points of section, shall be equal to the square of half the line.

9. To divide a given straight line into two such parts, that the rectangle contained by the whole line and one of the parts shall be equal to the square of the other part.

10. In any obtuse-angled triangle, the square of the side subtending the obtuse angle is greater than the squares of the sides including the obtuse angle, by twice the rectangle contained by either of those sides, and the straight line intercepted without the triangle between the obtuse angle and the perpendicular drawn to this side produced from the opposite angular point.

11. If the sides of a triangle be bisected in the points E, F, G and the straight lines EF, FG, GE be drawn, the triangle will be divided into four equal triangles.

12. How would you find an angle which should be the sixth part of a right angle?

13. If two equal isosceles triangles be constructed on the same base, but on opposite sides of it, they shall form a parallelogram.

14. On the same base with a given triangle construct an isosceles triangle equal to it.

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III. 5.—*Mathematics* (No. 2.)

[The questions in this paper are intended for those Candidates *only* who offer themselves for Examination in Higher Mathematics.

No Candidate is expected to attempt to answer more than one half of the questions in this paper.

Every Candidate is required to answer three at least of the questions from Euclid.

Candidates are recommended to answer questions in both of the following subjects.]

Euclid. I—VI.

[Only one of each pair of questions in this subject should be answered.]

1. Define a circle, a parallelogram, a rhombus, a rectangle, an oblong, a rectilineal angle.

What is the axiom relating to parallel lines? In what propositions is it employed?

2. The angles at the base of an isosceles triangle are equal to each other; and if the equal sides be produced, the angles on the other side of the base shall be equal.

Or,

Upon the same base, and on the same side of it, there cannot be two triangles that have their sides which are terminated in one extremity of the base, equal to one another, and likewise those which are terminated in the other extremity.

3. If at a point in a straight line, two other straight lines, upon the opposite sides of it, make the adjacent angles together equal to two right angles, these two straight lines shall be in one and the same straight line.

Or,

If a side of any triangle be produced, the exterior angle is equal to the two interior and opposite angles; and the three interior angles of every triangle are together equal to two right angles.

4. If a straight line be divided into any two parts, the square of the whole line is equal to the squares of the two parts, together with twice the rectangle contained by the parts.

Or,

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In obtuse-angled triangles, if a perpendicular be drawn from either of the acute angles to the opposite side produced, the square of the side subtending the obtuse angle, is greater than the squares of the sides containing the obtuse angle, by twice the rectangle contained by the side upon which, when produced, the perpendicular falls, and the straight line intercepted without the triangle between the perpendicular and the obtuse angle.

5. Draw a straight line from a given point, either without or in the circumference, which shall touch a given circle.

Or,

The opposite angles of any quadrilateral figure inscribed in a circle, are together equal to two right angles.

6. In a circle, the angle in a semicircle is a right angle; but the angle in a segment greater than a semicircle is less than a right angle; and the angle in a segment less than a semicircle is greater than a right angle.

Or,

If a straight line touch a circle, and from the point of contact a straight line be drawn cutting the circle; the angles which this line makes with the line touching the circle, shall be equal to the angles which are in the alternate segments of the circle.

7. Inscribe a circle in a given triangle.

Or,

Inscribe an equilateral and equiangular quindecagon in a given circle.

8. Similar rectilineal figures are those which have their several angles equal, each to each, and the sides about the equal angles proportionals.

9. Triangles and parallelograms of the same altitude are one to the other as their bases.

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Or,

If an angle of a triangle be bisected by a straight line which likewise cuts the base; the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base, together with the square of the straight line which bisects the angle.

10. Equal triangles which have one angle of the one equal to one angle of the other, have their sides about the equal angles reciprocally proportional: and conversely, triangles which have one angle in the one equal to one angle in the other, and their sides about the equal angles reciprocally proportional, are equal to one another.

Or,

If four straight lines be proportionals, the rectangle contained by the extremes is equal to the rectangle contained by the means: and conversely, if the rectangle contained by the extremes be equal to the rectangle contained by the means, the four straight lines are proportionals.

11. AB and CD are parallel chords in a circle $ABCD$; shew that the arcs AC , BD are equal.

12. Through a given point outside a given circle draw a line which shall cut off an arc equal to a given arc of the circle.

13. Two circles touch one another externally in the point A ; and are touched by one of their common tangents at Q Q' by the other at P , P' . If Q Q' be bisected in R and PP' in S , show that RS touches each of the circles at A and that $RS = PP' = QQ'$.

14. An equilateral four-sided figure is necessarily a parallelogram.

15. C is a point on the circumference of a circle and CP , CP' . . . are chords: shew that if CQ CQ' be taken on the lines CP CP' . . reciprocally proportional to CP , CP' etc. the locus of the points Q is a straight line.

*Algebra.**Quadratic Equations, Progressions, &c.*

16. Solve the equations

(1) $7x^2 + 13x = 2.$

(2) $x^6 - 7x^3 = 8.$

(3) $\frac{\sqrt{2}}{x} = \frac{3}{\sqrt{(x+x^2)}} - \frac{\sqrt{2}}{1+x}.$

(4) $\begin{aligned} x^2 - xy &= 10, \\ 2x - 3y &= 1. \end{aligned}$

17. Simplify the surds

$$\begin{aligned} &\sqrt[3]{a^5b^3}, & \sqrt{180}, & (a^{\frac{1}{n+1}} \times a^{\frac{1}{n-1}})^{\frac{1}{n}}, \\ &\frac{3}{\sqrt{5}-\sqrt{3}}, & \sqrt{7-4\sqrt{3}}. \end{aligned}$$

18. Prove the formula for finding the sum of n terms of an arithmetic series; and insert 5 arithmetic and 3 harmonic means between 1 and 2.

19. Find the sum of the following series:

$1 \frac{1}{2} + 1 + \frac{1}{2} \dots \text{to } 7 \text{ terms.}$

$27 + 18 + 12 + \dots \text{to infinity.}$

$1 \frac{1}{2} + 2 \frac{1}{4} + 3 \frac{1}{8} + \dots \text{to } n \text{ terms.}$

20. If $b-a$ be a harmonic mean between $c-a$ and $d-a$, shew that $d-c$ is a harmonic mean between $a-c$ and $b-c$.21. If $\frac{1}{10}$ be the harmonic and $\frac{1}{6}$ the geometric mean between two fractions, find them.22. If $a : b :: c : d$ shew that $\frac{ax+b}{cx+d}$ has always the same value whatever be the value of x . Prove also that

$$\sqrt{a+b} : \sqrt{b} :: \sqrt{c+d} : \sqrt{d}.$$

23. If $A \propto B + \frac{1}{C}$ and $B \propto C$, and if when $C = 1$, $B = 1$, $A = 4$; find the value of B when $A = 5$.

111. 24. Prove the formula for finding the number of permutations of n things taken r and r together.

25. How many different numbers can you form with the figures 1, 2, 3, 4; and if you put a decimal point before the first figure of each of them, what sum will you obtain by adding them all together?

26. Prove that the number of combinations of n things taken r together is equal to the number of combinations of n things taken $n-r$ together.

27. Solve the equations

$$-\frac{l}{x} + \frac{m}{y} + \frac{n}{z} = a.$$

$$\frac{l}{x} - \frac{m}{y} + \frac{n}{z} = b.$$

$$\frac{l}{x} + \frac{m}{y} - \frac{n}{z} = c.$$

III. 5.—*Mathematics* (No. 3.)

[Candidates are required to answer questions in each of the two subjects of this paper.]

Arithmetic.

1. Find the value of

$$(1) \quad \frac{1}{3} - \frac{4}{21} + \frac{1}{2} - \frac{7}{11}.$$

$$(2) \quad \frac{2 + \frac{1}{2} - \frac{1}{3}}{2\frac{1}{3} - 1\frac{1}{4}}.$$

$$(3) \quad \frac{38}{39} \times 2\frac{1}{7} \times 2\frac{\frac{1}{4}}{\frac{3}{4}} \div \frac{5}{14}.$$

2. How do you multiply or divide a decimal by any power of 10? Prove the truth of your answer.

3. Divide .0169 by .013, 49.7 by .0025,
and .00003 by .001.

4. Explain the meaning of the words, "Integer," "Power,"
"Prime," "Root," "Reciprocal," "Surd."

5. What is the value of $\frac{12}{91}$ of 13 guineas, and of $\frac{17}{73}$ of
£7. 18s. 2d.?

Reduce $\frac{8}{1.25}$ of a penny to the decimal of a pound.

6. Find the price of 63 cwt., 3 qrs., 18 lbs., 8 oz., at
£8. 12s. 8d. per cwt.

7. How many hours a day must 171 men work to do in
91 days what it takes 143 men 133 days of nine hours each
to do?

8. What is the present value of £1051. 5s. 0d. due a year
hence at £5. 2s. 6d. per cent.?

Algebra to Simple Equations inclusive.

9. Find the value of

$$(1) \quad \sqrt{2a} + \sqrt{2b} - 3\sqrt{(2c^2 - d^2)},$$

$$(2) \quad \frac{a-b}{a+b} - \frac{4(c-d)}{c+d},$$

where $a = 8$, $b = 4$, $c = 5$, $d = 7$.

10. Add together

$3x - 5y - 6z$, $2x + 3y + 4z$, $-4x + 3y + 3z$,
and subtract $3x - y + z$ from the sum.

11. Express without brackets the following quantities:

$3(2a - b - c) - 5(a - (2b + c)) + 2(b - (c - a))$,
and $(x + y)(x - y) - x(x + y) + y(x + y)$.

12. Multiply $1 - 2x + x^2$ by $1 - 2y + y^2$,

and $a + 2b - 3c$ by $a - 2b + 3c$.

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13. Divide

$$x^5 - 3x^4 + 4x^3 + 26x^2 - 92x + 55 \quad \text{by} \quad x^2 - 3x + 11,$$

$$\text{and} \quad nm(x^5 + 1) + (n^2 + m^2)(x^4 + x) + (n^2 + 2nm)(x^3 + x^2) \\ \text{by} \quad nx^2 + mx + n.$$

14. What is the greatest common divisor of $3x^3 - 3x - 18$, and $2x^2 + 2x - 12$? and what is the least common multiple of $-3x^3y^2z$, $-12x^2yz^3$, $42x^3yz^2$.

15. Find the value of

$$(1) \quad \frac{a-b}{a} + \frac{a-b}{b} + \frac{a^2+b^2}{ab}.$$

$$(2) \quad \frac{x^2-y^2}{xy} \times \frac{x^2}{x+y} \div \frac{x-y}{y^2}.$$

16. Raise $(1 + 2x + x^2)$ to the square; and $(1 - x)$ to the 4th power.

17. Extract the square root of

$$16 + 8a + a^2 - 8a^3 - 2a^4 + a^6.$$

18. Prove that in an equation any quantity may be transferred from one side of the equation to the other by changing its sign.

19. Solve the equations

$$(1) \quad 3x - 5 = 2x + 2.$$

$$(2) \quad \frac{3x-9}{7} - \frac{x+1}{11} = \frac{3x-14}{8}.$$

$$(3) \quad \frac{a-2x}{abx} = \frac{1}{b^2} - \frac{1}{ab}.$$

$$(4) \quad \frac{2}{x} = \frac{3}{x-1} - \frac{1}{x-2}.$$

20. A garrison is provisioned for 180 days. At the end of 30 days it is found that a fourth of the stores then remaining are unfit for use, and must be condemned. At the end of 30 days more they receive a reinforcement of 2000 men, and then the stores are made to last 110 days longer by putting the men on half rations. Find the number of the original garrison.

III. 5.—*Mathematics* (No. 4.)III.
MATHEMATICS.

[No Candidate is expected to attempt to answer more than one half of the questions in this paper.

Candidates are recommended to answer questions in as many of the subjects as they can.]

Trigonometry.

1. Define the supplement and the complement of an angle. Write down the supplements and complements of $279^{\circ} 30' 39''$, and $150^{\circ} 21' 13''$.

2. Prove that $\sin(-A) = -\sin A$, $\cos(-A) = \cos A$, and write down a formula which shall include all angles that have the same sine as A .

3. Prove that $\sin^2 A + \cos^2 A = 1$, and express $\sin A$ and $\cos A$ in terms of $\tan A$.

4. Construct geometrically an angle less than 180 degrees, and having $-\frac{1}{3}$ for its tangent. When any number is given, can you always find an angle which has that number for its tangent? And can you always find an angle which shall have the given number for its secant?

5. Find the values of $\sin 30^{\circ}$, $\sin 60^{\circ}$, $\tan 15^{\circ}$. What is the external angle of a regular quindecagon?

6. Prove the formula

$$\sin(A+B) = \sin A \cos B + \sin B \cos A.$$

7. Shew that

$$(1) \quad \cos 2A = \frac{1 - \tan^2 A}{1 + \tan^2 A}.$$

$$(2) \quad \sin(n+2)A = 2 \cos A \sin(n+1)A - \sin nA,$$

and express $\frac{1 - \cos A}{\sin A}$ and $\sqrt{1 - \sin A}$ in terms of the sine and cosine of $\frac{A}{2}$.

8. Find A from the equation

$$\sin 2A = 3 \tan A \cos 2A.$$

9. Shew that in any plane triangle

$$a = b \cos C + c \cos B$$

$$\text{Area} = \sqrt{s(s-a)(s-b)(s-c)}.$$

III. 10. What is the "Ambiguous Case" in the solution of
MATHEMATICS. Plane Triangles?

11. Two straight roads, which cross one another, meet a canal at angles of 30° and 60° respectively. If it be three miles, by the longer of the two roads from the crossing to the canal, what is it by the shorter? and if there be a foot-path which goes the shortest way to the canal, what is the distance by it?

Use of Logarithms.

12. Give a definition of the Logarithm of a number. What are the Logarithms of 10, 100, .001 to base 10? What would they be if the base chosen were .01, and what if it were 1000?

13. Given $\log 2 = .30103$, $\log 18 = 1.2552725$, $\log 21 = 1.3222193$, find $\log .00075$ and $\log 31.5$.

14. What is the mantissa, and what the characteristic of a Logarithm. Prove that the same mantissa serves for all numbers consisting of the same figures in the same order.

15. Prove that $\log a^b = b \log a$, and that $\log \frac{b}{a} = \log b - \log a$.

*16. Find the Logarithms of 2.61, of 2626.26, of 26357750; and the numbers corresponding to the logs 1.4216286, 3.418505.

17. Construct a table of proportional parts, corresponding to a Diff. of 64.

* 18. In a plane triangle given $A = 80^\circ 10'$, $\log (b+c) = 2.288625$, $\log (b-c) = 3.275955$; find B and C .

Mensuration.

19. The area of a rectangle is equal to the base multiplied by the altitude. Explain the meaning of this assertion, and give a proof of it.

20. What is meant by saying that two straight lines are incommensurable? When the base and altitude of a rectangle are incommensurable, how do you prove the proposition enunciated in the last question?

21. Find to the nearest square inch the area of a triangle whose sides are 5, 6, and 7 feet respectively.

22. A railway platform has two of its opposite sides parallel and its other two sides equal. The parallel sides are 80 feet

* See the annexed Paper of Logarithms.

and 92 feet respectively: the equal sides are 10 feet each.
Find its area.

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23. Find the solid content of a log of timber 10 yards, 2 feet, 7 inches long, by 2 feet 11 inches broad, and 2 feet 5 inches deep.

24. If a pressure of 15lbs. on every square inch be applied to a circular plate 3 feet in diameter, what is the total pressure to the nearest hundredweight?

25. A gold wire of .01 of an inch in thickness is bent into a ring one inch in diameter; if the area enclosed by the ring be gilded with a weight of gold equal to the weight of the ring, what will be the thickness of the gilding?

26. Find the number of cubic feet in a hexagonal room, each side of which is 20 in length, and the walls 30 feet high, and which is finished above with a roof in the form of a hexagonal pyramid 15 feet high.

27. Prove the formula for finding the solid content of a triangular pyramid.

28. What is the solid content of a sphere, when its surface is equal to that of a circle 4 feet in diameter?

Practical Geometry.

29. Bisect a given right line with a ruler and compasses. With compasses only how would you bisect a straight line by trial?

30. Construct an angle equal to a given angle.

31. Shew how to construct a scale of chords. What is the use of it when it is constructed?

32. How would you construct a scale of a foot to an inch? Shew that you would only require two openings of the compasses to set off any number of feet and inches on your plan.

33. How would you draw a curve that shall resemble a given curve, and be on a scale reduced say by one half?

34. With a triangle only through a given point draw a parallel to a given line.

35. Given two lines which meet in an inaccessible point, it is required to draw through a given point a line which shall meet them at their point of intersection.

36. Given a circle; how would you find a circle which should be half the size of the given circle?

37. What is a diagonal scale, a protractor, a bevel? and for what purposes are they used?

III.
MATHEMATICS.

Logarithms of Numbers from 26000 to 26499.

N.	0	1	2	3	4	5	6	7	8	9	D	Pro.
2600	4149733	9901	0068	0235	0402	0569	0736	0903	1070	1237	167	
01	4151404	1570	1737	1904	2071	2238	2405	2572	2739	2906		167
02	3073	3240	3407	3574	3741	3907	4074	4241	4408	4575	1	17
03	4742	4909	5075	5242	5409	5576	5743	5909	6076	6243	2	33
04	6410	6577	6743	6910	7077	7244	7410	7577	7744	7911	3	50
05	8077	8244	8411	8577	8744	8911	9077	9244	9411	9577	4	67
06	9744	9911	0077	0244	0411	0577	0744	0911	1077	1244	5	84
07	4161410	1577	1743	1910	2077	2243	2410	2576	2743	2909	6	100
08	3076	3242	3409	3575	3742	3908	4075	4241	4408	4574	7	117
09	4741	4907	5074	5240	5407	5573	5739	5906	6072	6239	8	134
2610	6405	6571	6738	6904	7071	7237	7403	7570	7736	7902	9	150
11	8069	8235	8401	8568	8734	8900	9067	9233	9399	9565		
12	9732	9898	0064	0231	0397	0563	0729	0895	1062	1228		
13	4171394	1560	1726	1893	2059	2225	2391	2557	2724	2890		
14	3056	3222	3388	3554	3720	3886	4053	4219	4385	4551		166
15	4717	4883	5049	5215	5381	5547	5713	5879	6045	6211	166	17
16	6377	6543	6709	6875	7041	7207	7373	7539	7705	7871	2	33
17	8037	8203	8369	8535	8701	8867	9033	9199	9365	9531	3	50
18	9696	9862	0028	0194	0360	0526	0692	0857	1023	1189	4	66
19	4181355	1521	1687	1852	2018	2184	2350	2516	2681	2847	5	83
2620	3013	3179	3344	3510	3676	3842	4007	4173	4339	4505	6	100
21	4670	4836	5002	5167	5333	5499	5664	5830	5996	6161	7	116
22	6327	6493	6658	6824	6989	7155	7321	7486	7652	7817	8	132
23	7983	8148	8314	8480	8645	8811	8976	9142	9307	9473	9	149
24	9638	9804	9969	0135	0300	0466	0631	0797	0962	1128		
25	4191293	1459	1624	1789	1955	2120	2286	2451	2616	2782		
26	2947	3113	3278	3443	3609	3774	3939	4105	4270	4435		
27	4601	4766	4931	5097	5262	5427	5593	5758	5923	6088		
28	6254	6419	6584	6749	6915	7080	7245	7410	7575	7741		
29	7906	8071	8236	8401	8567	8732	8897	9062	9227	9392		165
2630	9557	9723	9888	0053	0218	0383	0548	0713	0878	1043		
31	4201208	1374	1539	1704	1869	2034	2199	2364	2529	2694	165	17
32	2859	3024	3189	3354	3519	3684	3849	4014	4179	4344	2	33
33	4509	4674	4838	5003	5168	5333	5498	5663	5828	5993	3	50
34	6158	6323	6487	6652	6817	6982	7147	7312	7477	7641	4	66
35	7806	7971	8136	8301	8465	8630	8795	8960	9125	9289	5	83
36	9454	9619	9784	9948	0113	0278	0442	0607	0772	0937	6	99
37	4211101	1266	1431	1595	1760	1925	2089	2254	2419	2583	7	116
38	2748	2913	3077	3242	3406	3571	3736	3900	4065	4229	8	132
39	4394	4558	4723	4888	5052	5217	5381	5546	5710	5875	9	149
2640	6039	6204	6368	6533	6697	6862	7026	7191	7355	7520		
41	7684	7848	8013	8177	8342	8506	8671	8835	8999	9164		
42	9328	9493	9657	9821	9986	0150	0314	0479	0643	0807		164
43	4220972	1136	1300	1465	1629	1793	1957	2122	2286	2450	1	16
44	2615	2779	2943	3107	3271	3436	3600	3764	3928	4093	2	33
45	4257	4421	4585	4749	4913	5078	5242	5406	5570	5734	3	49
46	5898	6063	6227	6391	6555	6719	6883	7047	7211	7375	4	66
47	7539	7703	7868	8032	8196	8360	8524	8688	8852	9016	5	82
48	9180	9344	9508	9672	9836	0000	0164	0328	0492	0656	6	98
49	4230820	0984	1147	1311	1475	1639	1803	1967	2131	2295	7	115
											8	131
											9	148
N.	0	1	2	3	4	5	6	7	8	9	D	Pts.

g.

Log. Sines, &c.

Sine	Dif.	Cosec.	Verseds.	Tang.	Dif.	Cotang.	Covers.	Secant.	Dif.	Cosine	
8080675	1505	10.1919325	9.3691334	9.9238135	2566	10.0761865	9.5529265	10.1157460	1061	9.8842540	60
8082180	1504	10.1917820	9.3694804	9.9240701	2565	10.0759299	9.5526555	10.1158521	1061	9.8841479	59
8083684	1504	10.1916316	9.3698272	9.9243266	2565	10.0756734	9.5523845	10.1159582	1061	9.8840418	58
8085188	1502	10.1914812	9.3701739	9.9245831	2565	10.0754169	9.5521133	10.1160643	1063	9.8839357	57
8086690	1502	10.1913310	9.3705205	9.9248396	2564	10.0751604	9.5518420	10.1161706	1062	9.8838294	56
8088192	1500	10.1911808	9.3708669	9.9250960	2564	10.0749040	9.5515706	10.1162768	1064	9.8837232	55
8089692	1500	10.1910308	9.3712131	9.9253524	2564	10.0746476	9.5512992	10.1163832	1064	9.8836168	54
8091192	1499	10.1908808	9.3715592	9.9256088	2564	10.0743912	9.5510276	10.1164896	1065	9.8835104	53
8092691	1498	10.1907309	9.3719051	9.9258652	2563	10.0741348	9.5507559	10.1165961	1065	9.8834039	52
8094189	1497	10.1905811	9.3722508	9.9261215	2563	10.0738785	9.5504841	10.1167026	1066	9.8832974	51
8095686	1496	10.1904314	9.3725965	9.9263778	2563	10.0736222	9.5502122	10.1168092	1067	9.8831908	50
8097182	1496	10.1902818	9.3729419	9.9266341	2563	10.0733659	9.5499402	10.1169159	1067	9.8830841	49
8098678	1494	10.1901322	9.3732872	9.9268904	2562	10.0731096	9.5496681	10.1170226	1068	9.8829774	48
8100172	1494	10.1899828	9.3736323	9.9271466	2562	10.0728534	9.5493959	10.1171294	1068	9.8828706	47
8101666	1493	10.1898334	9.3739773	9.9274028	2562	10.0725972	9.5491236	10.1172362	1070	9.8827638	46
8103159	1491	10.1896841	9.3743221	9.9276590	2562	10.0723410	9.5488511	10.1173432	1069	9.8826568	45
8104650	1491	10.1895350	9.3746668	9.9279152	2561	10.0720848	9.5485786	10.1174501	1071	9.8825499	44
8106141	1490	10.1893859	9.3750113	9.9281713	2561	10.0718287	9.5483060	10.1175572	1071	9.8824428	43
8107631	1490	10.1892369	9.3753557	9.9284274	2561	10.0715726	9.5480333	10.1176643	1072	9.8823357	42
8109121	1488	10.1890879	9.3756999	9.9286835	2561	10.0713165	9.5477604	10.1177715	1072	9.8822285	41
8110609	1487	10.1889391	9.3760440	9.9289396	2560	10.0710604	9.5474875	10.1178787	1073	9.8821213	40
8112096	1487	10.1887904	9.3763879	9.9291956	2560	10.0708044	9.5472145	10.1179860	1073	9.8820140	39
8113583	1486	10.1886417	9.3767316	9.9294516	2560	10.0705484	9.5469413	10.1180933	1075	9.8819067	38
8115069	1485	10.1884931	9.3770752	9.9297076	2560	10.0702924	9.5466681	10.1182008	1074	9.8817992	37
8116554	1484	10.1883446	9.3774186	9.9299636	2559	10.0700364	9.5463947	10.1183082	1076	9.8816918	36
8118038	1483	10.1881962	9.3777619	9.9302195	2560	10.0697805	9.5461212	10.1184158	1076	9.8815842	35
8119521	1482	10.1880479	9.3781050	9.9304755	2559	10.0695245	9.5458477	10.1185234	1077	9.8814766	34
8121003	1481	10.1878997	9.3784480	9.9307314	2558	10.0692686	9.5455740	10.1186311	1077	9.8813689	33
8122484	1481	10.1877516	9.3787908	9.9309872	2559	10.0690128	9.5453002	10.1187388	1078	9.8812612	32
8123965	1479	10.1876035	9.3791335	9.9312431	2558	10.0687569	9.5450264	10.1188466	1079	9.8811534	31
8125444	1479	10.1874556	9.3794760	9.9314989	2558	10.0685011	9.5447524	10.1189545	1079	9.8810455	30
8126923	1478	10.1873077	9.3798184	9.9317547	2558	10.0682453	9.5444783	10.1190624	1080	9.8809376	29
8128401	1477	10.1871599	9.3801606	9.9320105	2557	10.0679895	9.5442041	10.1191704	1081	9.8808296	28
8129878	1476	10.1870122	9.3805026	9.9322662	2558	10.0677338	9.5439298	10.1192785	1081	9.8807215	27
8131354	1475	10.1868646	9.3808445	9.9325220	2557	10.0674780	9.5436554	10.1193866	1082	9.8806134	26
8132829	1474	10.1867171	9.3811863	9.9327777	2557	10.0672223	9.5433809	10.1194948	1082	9.8805052	25
8134303	1474	10.1865697	9.3815279	9.9330334	2556	10.0669666	9.5431063	10.1196030	1083	9.8803970	24
8135777	1473	10.1864223	9.3818693	9.9332890	2556	10.0667110	9.5428316	10.1197113	1084	9.8802887	23
8137250	1471	10.1862750	9.3822106	9.9335446	2557	10.0664554	9.5425568	10.1198197	1084	9.8801803	22
8138721	1471	10.1861279	9.3825517	9.9338003	2556	10.0661997	9.5422818	10.1199281	1085	9.8800719	21
8140192	1470	10.1859808	9.3828927	9.9340559	2555	10.0659441	9.5420068	10.1200366	1086	9.8799634	20
8141662	1469	10.1858338	9.3832335	9.9343114	2556	10.0656886	9.5417317	10.1201452	1086	9.8798548	19
8143131	1469	10.1856869	9.3835742	9.9345670	2555	10.0654330	9.5414564	10.1202538	1087	9.8797462	18
8144600	1467	10.1855400	9.3839147	9.9348225	2555	10.0651775	9.5411811	10.1203625	1088	9.8796375	17
8146067	1467	10.1853933	9.3842551	9.9350780	2555	10.0649220	9.5409056	10.1204713	1088	9.8795287	16
8147534	1465	10.1852466	9.3845953	9.9353335	2554	10.0646665	9.5406301	10.1205801	1089	9.8794199	15
8148999	1465	10.1851001	9.3849354	9.9355889	2554	10.0644111	9.5403544	10.1206890	1089	9.8793110	14
8150464	1464	10.1849536	9.3852753	9.9358444	2554	10.0641556	9.5400786	10.1207979	1091	9.8792021	13
8151928	1463	10.1848072	9.3856151	9.9360998	2554	10.0639002	9.5398027	10.1209070	1090	9.8790930	12
8153391	1463	10.1846609	9.3859547	9.9363552	2553	10.0636448	9.5395268	10.1210160	1092	9.8789840	11
8154854	1461	10.1845146	9.3862942	9.9366105	2554	10.0633895	9.5392507	10.1211252	1092	9.8788748	10
8156315	1461	10.1843685	9.3866335	9.9368659	2553	10.0631341	9.5389745	10.1212344	1093	9.8787656	9
8157776	1459	10.1842224	9.3869727	9.9371212	2553	10.0628788	9.5386982	10.1213437	1093	9.8786563	8
8159235	1459	10.1840765	9.3873117	9.9373765	2553	10.0626235	9.5384218	10.1214530	1094	9.8785470	7
8160694	1458	10.1839306	9.3876506	9.9376318	2553	10.0623682	9.5381452	10.1215624	1095	9.8784376	6
8162152	1457	10.1837848	9.3879893	9.9378871	2552	10.0621129	9.5378686	10.1216719	1095	9.8783281	5
8163609	1457	10.1836391	9.3883278	9.9381423	2552	10.0618577	9.5375919	10.1217814	1096	9.8782186	4
8165066	1455	10.1834934	9.3886662	9.9383975	2552	10.0616025	9.5373151	10.1218910	1096	9.8781090	3
8166521	1454	10.1833479	9.3890045	9.9386527	2552	10.0613473	9.5370381	10.1220006	1096	9.8779994	2
8167975	1454	10.1832025	9.3893426	9.9389079	2552	10.0610921	9.5367611	10.1221104	1098	9.8778896	1
8169429	1454	10.1830571	9.3896806	9.9391631	2552	10.0608369	9.5364839	10.1222201	1097	9.8777799	0
Cosine	Dif.	Secant	Covers.	Cotang.	Dif.	Tang.	Verseds.	Cosec.	Dif.	Sine	

III.
MECHANICS.III. 6.—*Mechanics and Mechanism.* *(*Mechanical Drawing.*)

[Candidates are not expected to attempt more than ten questions in this paper.

N. B. The answers are to be illustrated by diagrams or drawings, when the nature of the question admits of it.]

Mechanics.

1. P , Q are two forces applied to a point in directions at right angles to one another, and R is their resultant: if $P = 60$, $Q = 80$, what is R ?

2. Draw a figure exhibiting the direction and magnitude of P , Q , and R (in the last question), and give the numerical values of the sine, cosine, and tangent of the angle between Q and R .

3. What is the moment of a force with respect to a point? If the force be represented by a line, by what is the moment represented?

4. A thin board in the form of a scalene triangle is suspended freely by one of its angular points. What point of the opposite side will hang vertically under the point of suspension? Prove your answer.

5. Three equal weights are placed at three given points A , B , C . Find (geometrically) their centre of gravity G , and prove that the triangles BGC , CGA , AGB are equal.

6. What kind of advantage can be gained by the use of *fixed* pulleys only?

7. Three pulleys are to be combined in a block. Illustrate by drawing the different ways in which this may be done.

8. Draw a system composed of one fixed and two moveable pulleys, and investigate the relation between the power and the weight.

9. In a screw press, the screw has 4 threads to the inch, the power is applied at a distance of 14 inches from the axis of the

* See the Notice issued to Candidates, p. 60.

screw, and the surface pressed is 110 square inches. Find (approximately) what power must be applied to produce a pressure of 1lb to the square inch?

10. State the general principle of equilibrium of the lever, and prove it when the lever is straight and the forces applied at right angles to it.

11. ABC is a lever bent into a right angle at B . The fulcrum is at A , AB is horizontal, BC vertical, (C uppermost), and $BC = 2AB$. If a weight of one pound be suspended from B , what horizontal force applied at C will balance it?

12. A solid of uniform density in the form of a spheroid, is laid on a table. What are its positions of stable and unstable equilibrium (1) when the spheroid is oblate, (2) when it is prolate?

13. A bow is stretched until the tension of the string just equals the pulling force. What is the angle between the two parts of the string?

14. A railway train weighing 40 tons is drawn up an incline of 1 in 40 by a rope. What weight *at least* must the rope be capable of supporting, and what are the reasons why this strength would not be sufficient in practice?

15. Define a unit of work. Prove that the work done in drawing a weight up an incline (without friction) is the same as in lifting it to the same vertical height.

16. State the principle of the "Mechanical Powers" in a form equally applicable to them all.

17. State briefly the experimental laws of friction.

18. If a weight is on the point of sliding down a plane of which the inclination is 45° , what force, parallel to the plane, will be just sufficient to draw it up?

19. A string attached to the outer top corner of a door, passes over a pulley fixed close to the corresponding corner of the door-way, and has a weight of 6lbs. hung at its other end. What force, applied at the edge of the door at right angles to its plane, will keep it open at an angle of 120° ?

20. Explain the arrangement of the compound wheel and axle.

III.

MECHANICS.

Mechanism of the Steam Engine.

21. What causes the *puffing* noise of a locomotive engine? If 4 puffs be heard in a second, and the circumference of the driving wheel be 22 feet, how many miles an hour is the train going?

22. How is the motion of a locomotive engine reversed?

23. Describe accurately the apparatus by which a steam engine is made self-regulating in any *one* of the following particulars, and mention the name of the apparatus for the other three:

- | | |
|--------------------------------------|--------------------------------|
| <i>a.</i> Pressure in boiler, | <i>b.</i> Speed of working, |
| <i>c.</i> Supply of water in boiler, | <i>d.</i> Rate of evaporation. |

24. Describe the mercurial steam guage for high-pressure boilers.

25. What is the construction of a tubular boiler, and what are its advantages?

26. Explain the construction and use of the air-pump in condensing engines.

27. How are the piston and air-pump rods usually connected with the beam?

28. Explain the construction and action of the four-way cock. In what cases is it objectionable?

29. What is an oscillating engine, and under what circumstances is this construction advantageous?

III.

CHEMISTRY.

III. 7.—*Chemistry.**Notice issued to Candidates.*

Each Candidate in the Practical Examination may be provided with the apparatus specified in the annexed list.

6 funnels, about $2\frac{1}{4}$ inches in diameter.

24 test tubes, about 7 inches long by $\frac{5}{8}$ inch diameter.

25 cut filters, about 4 inches diameter.

1 stand for test tubes, to hold 24 tubes.

2 glass stirring rods, about 9 inches long.

1 evaporating dish, of porcelain, about $4\frac{1}{2}$ inches diameter.

1 small tripod, or retort stand, with ring and triangle, to support the evaporating dish.

1 spirit lamp, to contain about 3 oz., provided with wick and spirit.

1 washing bottle, to hold about 1 pint, to be filled at the time of the examination.

A small piece of platinum foil, about $2\frac{1}{2}$ inches long and 1 inch broad, and a platinum wire, about 3 inches long.

A mouth blow-pipe.

2 or 3 pieces of charcoal, for blow-pipe experiments.

2 or 3 small pieces of glass tubing, about 4 inches long and $\frac{1}{4}$ wide, closed at one end.

A pen-knife.

No other apparatus than that here specified will be allowed, and all apparatus is subject to the inspection and approval of the Examiner.

Candidates can procure their apparatus as they please; but for their convenience it has been ascertained that Mr. J. Griffin, Dealer in Chemical Apparatus, Bunhill Row, London, is willing to supply complete sets of the apparatus allowed, at the cost of 12s. the set

Candidates are to bring their apparatus with them at the time of Examination. The room will be opened half an hour before the Examination for the purpose of allowing them to arrange their apparatus. Candidates are recommended to have their test tubes and the like perfectly clean, and the filters washed with distilled water, before the time of Examination. The distilled water for the Examination will be provided.

Each Candidate is to be supplied by the Examiner with the Reagents specified in the annexed list, and also with a pint of distilled water. He is requested himself to see that he has all the Reagents mentioned in the list. The greatest care is to be taken not to affect the purity of the Reagents. Candidates are cautioned not to change the stoppers of the bottles.

The number of the substance or solution given for examination is to be prefixed to the answer.

III.
CHEMISTRY.

A clear and distinct account is to be given of the experiments made, so that there shall be no mistake as to the grounds of the conclusion, which are equally important with the conclusion itself.

No other experiments whatever are to be mentioned but those actually performed.

The account of each experiment should be given in a distinct Paragraph.

List of Reagents.

Ammonia.	Chloride of Ammonium.
Potash.	Ferrocyanide of Potassium.
Carbonate of Ammonia.	Sulphate of Magnesia.
Sulphide of Ammonium.	Phosphate of Soda.
Solution of Sulph. Hydrogen.	
Nitrate of Silver.	
Chloride of Barium.	
Nitric Acid.	Protosulphate of Iron.
Hydrochloric Acid.	Carbonate of Soda.
Sulphate of Lime.	Borax.
Oxalate of Ammonia.	Nitre.

III. 7.—*Chemistry.*

1. By what experiments would you distinguish between the flame produced by the combustion of Hydrogen and of Carbonic Oxide?

2. What would be the nature and the quantity of the Gas that remained after the Oxygen had been absorbed from 50 cubic inches of air, and with what methods are you acquainted by which this absorption might be effected?

3. Give an account of the Chemical constitution, the properties, and the mode of preparation of Hydrochloric acid and of Hydrate of Potash.

4. What would be the result of heating metallic silver (1) in Nitric Acid, (2) in Hydrochloric Acid, (3) in a mixture of the two acids?

5. What Chemical changes, if any, take place on the application of heat to the following substances?—Peroxide of Lead, Oxide of Silver, Chlorate of Potash, Carbonate of Lime, Bichloride of Platinum, Chloride of Silver, Sulphate of the Protoxide of Iron, Sulphate of Baryta.

6. Describe Iodine.

7. How is “cast” iron converted into “wrought” iron? What is the Chemical difference between them?

8. Give the formulæ of the following substances: Nitric Oxide, Peroxide of Iron, Alumina, the Chlorides of Mercury, Baryta, Nitrate of Soda, Bisulphate of Potash, Acetic Acid, Cyanide of Mercury, Ammonia.

9. What change takes place when a current of Sulphuretted Hydrogen Gas is passed through a solution of Arsenious Acid. To what class does the substance, formed under these circumstances, belong, and what is its behaviour with solutions of Potash and of Sulphide of Potassium?

10. What are the properties of solutions of the following salts? (1) Nitrate of the sesquioxide of Iron, (2) Chloride of Cobalt, (3) Sulphate of Nickel, (4) Bichromate of Potash, (5) Chloride of Ammonium.

11. From what ores are the metals Lead, Tin, Zinc, and Copper obtained, and what is the Chemical constitution of these ores?

12. State the nature of the change which takes place when water is decomposed, (1) by heated iron, (2) by heated charcoal, (3) by Potassium.

III. 7.—*Chemistry.*

(*Practical Examination.*)

I and II.

These substances each contain a single Acid and a single Base, which you are required to detect.

III and IV.

Examine the action of heat on a portion of these sub-

III.
CHEMISTRY.

stances, and state the opinion which this enables you to form as to their nature. Dissolve another portion in water, and proceed to the detection of the Acid and Base present. Each substance consists of a single Acid and a single Base.

V.

Examine this substance with the blowpipe for Manganese.

VI.

This substance contains only Potash or Soda. Which is present?

III.
BOTANY
AND
ZOOLOGY.

III. 8.—*Botany and Zoology.*

1. What parts of their respective plants are the substances used in cookery under the names of potatoes, turnips, cauliflowers, pears, cinnamon, peas, rhubarb, ginger, coffee, long pepper?

2. Describe the difference in veining of the leaves in specimens 1 and 2. What difference in the mode of growth of the stem, and what difference in the seed does it indicate?

3. In specimens 3 and 4, state the number of the sepals and the petals, in each flower, and describe the root of each plant.

4. What are the reproductive organs of ferns and of toadstools called, and where are they placed?

5. Break in two and separate gently the broken ends of the leaf-stalk in specimen 4, and state the nature of the fine threads thus rendered visible. What is their appearance under the microscope?

6. In what countries might you expect to find the following plants growing wild on a plain or low hill—raspberry, strawberry, ivy, palm, willow, foxglove? and where would you not find them?

7. What are the uses of the following plants—*daucus carota*, *digitalis purpurea*, *acacia*, *guaiacum* (in medicine and in manufactures), flax, hemp, *saccharum officinale*, poppy, orchil, madder?

8. In what particulars do rosaceæ differ from ranunculaceæ? Which are most likely to be good for food? Quote examples.

9. Point out peculiarities in the sections of teeth given you which shew what order of animals they are taken from.

10. In the specimen bone of a quadruped, state what, during life, passed through the hole in which the tape is inserted.

11. Give instances of mammalia who have no teeth—of those who have no incisors in the upper jaw—of British mammalia whose incisor teeth grow continuously during life.

12. What is the difference in the respiration of a fish and of a frog, and why should the latter die if his mouth is kept open?

13. How does the blood of an eagle differ from that of a sheep?

14. Why should not flying animals, such as bats, be classed with birds; and swimming animals, such as porpoises, with fish?

15. What part of a horse's leg answers to the heel of a man?

16. What is there in the habits or organization of the following animals which renders particular climates suitable to them—the sloth, the whale, the camel, the swallow, the white bear? And what is the limit beyond which in the longitude of London the species of common ass and hornet would die out unless renewed by importation?

(*The Specimens, &c. referred to were—*

1. *Sprig of bamboo dried.*
2. *Sprig of willow dried.*
3. *Fresh buttercup plant.*
4. *Fresh strawberry plant.*
5. *Card with sections of teeth of ox and dog.*
6. *Dorsal vertebra of a horse.*

The Specimens 3 and 4 were also intended to assist the candidate in his answer to Question 8.

IV.
DRAWING.IV.—*Drawing.**Notice issued to Candidates.*

I. Candidates in Drawing are recommended to provide themselves with the following articles :—

1. A Drawing Board about 23 inches by 16.

(Pieces of deal of the required size, planed smooth and true, will answer the purpose, provided the edges are straight, and the corners truly squared.)

2. A T square, about 18 inches long, a set square about 6 inches long, a pair of compasses with a pencil attached, 8 drawing pins, and all other necessary materials, *except paper*, which will be supplied by the University.

II. Candidates in the departments of Mathematics, Natural Philosophy, Mechanics, &c., are allowed to bring in the usual Mathematical Drawing Instruments; subject however to any limitation which the Examiners may think fit.

IV. 1. (First Paper.) *Drawing from the Flat, and from Models.*

[Five Hours allowed.]

1. Copy in black lead pencil the accompanying outline about one fourth larger than the original.

2. Make *an outline*, and also *a shadowed drawing* in pencil or in black chalk upon white paper of the accompanying cast of the human ear.

[In order to satisfy the Examiners in this section, Candidates will be required to perform both of the above-mentioned exercises.]

IV. 1. (Second Paper.) *Drawing from Memory.*IV.
DRAWING.

[One Hour allowed.]

Sketch from memory any one or more of the following objects :

- a box with the lid raised ;
- a bason and ewer ;
- a table ;
- a garden roller ;
- a boat ;
- the stem of a tree ;
- a cottage ;
- a flower ;
- a horse ;
- an ox ;
- a dog ;
- a cart.

These sketches may be made with any material preferred by the Candidate.

IV. 1. (Third Paper.) *Drawing in Perspective.*

1. Name the points used in perspective and their uses.

2. What is considered to be the largest angle that the eye can fairly embrace without objects becoming distorted in perspective ?

3. Draw in perspective a regular hexagonal plane (see accompanying figure A)* each of whose sides is 5 feet, and which stands perpendicularly to the ground plane and to the plane of the picture, 4 feet to the right of the centre or line of direction, and with one of its angles touching the plane of the picture.

4. Draw the same plane horizontally, 6 feet above the ground line, one side parallel to the plane of the picture and 4 feet within it.

5. Draw a circle within the hexagon touching each of its sides, and one outside touching each of its angles.

* The hexagonal plane and the scale were given.

IV.
MUSIC.IV. 2.—*The Grammar of Music.*

1. What do you mean by the following terms—*flat, sharp, natural, signature, accidental*?
 2. What is a *semitone*, and how many semitones make an octave?
 3. How many *tones* [or tones and semitones] does a *major third* contain? And how many does a *minor third*?
 4. Distinguish between the various kinds of time—*duple, triple, simple, and compound*.
 5. How many flats are there in the major scale of E flat?
 6. How many in the scale of E flat minor?
 7. What other key has the same signature as E flat? and as E flat minor?
 8. What is a *scale*?
 9. How many kinds of scale are there in common use?
 10. How can you tell a *major* key from a *minor* key?
 11. Explain the words *tonic, dominant, and subdominant*.
 12. What is the difference between C time and C time?
-

SENIOR CANDIDATES.

I.

I.
PRELIMINARY
EXAMINATION.I. 1. *Analysis and Parsing, and Correction of faulty Sentences.*

[N. B. All Candidates are required to satisfy the Examiners in this Paper.

The first three questions should be attempted before any of the others.]

1. Analyse the following passage, and parse fully the words printed in italics :—

To *each* his sufferings; *all* are men,
Condemned *alike* to groan;
The *tender* for *another's* pain,
Th' unfeeling *for* his *own*.

2. Copy the following passage clearly and legibly, correcting mistakes of spelling and grammar, but not otherwise altering either the words or their order :

The utiltey of geoggrafical works are so generaly admited that it seams unnecesary to endevvor, by any lenthenned staitments, to consiliate the faivorable oppinion of the reader by dwelling on there merrits. Their is few so incureous as not to wish to lern sumthing of the staite of forrin contries, especially of those with which there own nation is conected, or which has been cellabrated in hystery. The disire to grattefy this lawdable cureosity has in al ages prompted indevidduels to viset forrin contries; and have maid the works of voyigers and travvelers to be egarly saught after. But the sittuation of most peopel preclude the possabillity of there

I.
PRELIMINARY
EXAMINATION.

leaving there native country: while few of those who do travel can survey more than a small part of the earth's surface. Neither is it possible adequately to supply this want of personal knowledge by resorting to the relations of travelers.

3. Point out and correct any faults of grammar in the following sentences :

Neither of those boys have learned to read quick.

Louis was in some respects a good man, but being a bad ruler his subjects rebelled.

The happiness or misery of men's lives depend very much on his early training.

There was no one but her in the room.

I do not know who you wish to read this letter.

I never have and never can believe it.

4. Name, and explain the use of each of, the parts of speech. What simpler classification of them has been proposed ?

5. Mention some nouns which have

- (1) no singular,
- (2) no plural,
- (3) singular and plural the same.

6. Give the first person singular of the verb *to draw* through all its moods and tenses.

7. Give the derivation of—

sceptic,	alms,	vein,
beauty,	mercy,	physician,
doubt,	handkerchief,	county.

8. Explain the following grammatical terms :

noun of multitude,
impersonal verb,
reflective verb,
weak conjugation,
absolute case.

9. What is a *simple* sentence ? Of what principal parts does it consist ? Wherein does it differ from a *compound* sentence ?

I. 2. *Composition.*I.
PRELIMINARY
EXAMINATION.

[N. B. All Candidates are required to satisfy the Examiners in this Paper.]

1. Write a short account of the life and character of Lord Nelson.

Or,

2. Sketch the Plot of any one of Sir Walter Scott's poems or novels.

Or,

3. Give a short account of any one of the manufactures carried on in Great Britain.

Or,

4. Supposing that a friend has written to ask for some account of the school or schools at which you were brought up, write a letter in reply.

I. 3. *Arithmetic.*

[N. B. All Candidates are required to satisfy the Examiners in this Paper.]

1. Write down in figures :

(1) Four hundred and three thousand and twelve.

(2) Seven million twenty-four thousand and five.

(3) Five hundred and one million five hundred and one thousand and eighteen.

2. Reduce 3 weeks 6 days 10 hours and 13 seconds to seconds.

3. In 9367875 inches how many miles, &c. ?

4. If the carriage of $5\frac{1}{4}$ cwt. for 114 miles costs 4s. 8d., how far ought $3\frac{1}{2}$ cwt. to be carried for the same money ?

5. By the reduction of the income tax from 7d. in the pound to 5d. a person saves 28l. 2s. 6d. a year : what is his income ?

6. Find the dividend on 3469l. 10s. at 15s. $6\frac{1}{2}$ d. in the pound.

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7. Find the price of 104 acres 3 roods and 10 perches at 42*l.* 15*s.* an acre.

8. Find the simple interest on 5982*l.* 7*s.* 6*d.* for 4 years at $3\frac{3}{4}$ per cent.

9. Find the amount of 2500*l.* in 3 years at $4\frac{1}{2}$ per cent. compound interest.

10. Add together $\frac{2}{5}$, $6\frac{5}{7}$, $\frac{13}{9}$ and $\frac{8}{21}$.

11. Subtract $3\frac{3}{4}$ from $4\frac{3}{7}$.

12. Multiply $\frac{2}{5}$ of $7\frac{1}{2}$ by $\frac{1}{8}$ of $11\frac{1}{5}$.

13. Divide $11\frac{3}{5}$ by $4\frac{1}{7}$.

14. Add together 125.3, 29.024, .09063, and 671.

15. Subtract 3.6592 from 42.17.

16. Multiply 3.714 by 28.7.

17. Divide 68.8085 by 1.5.

18. Divide .060248 by 27.2.

19. Reduce 5*s.* 6*d.* to the decimal of 4*l.*

I. 4. *Geography.*

[N. B. All Candidates are required to satisfy the Examiners in this Paper.

Four questions at least should be attempted, of which the first must be one.]

1. On the accompanying Map of Europe insert the names of the Seas, Islands, Chief Bays, and Headlands; trace the course of the Rhine, Rhone, Tagus, Po, Vistula, and Seine, and the lines of the chief Mountain Chains: mark the position of Hanover, Edinburgh, Bordeaux, Lisbon, Trieste, Copenhagen, Odessa, Lyons, St. Petersburg, Palermo.

2. Draw a Map of Ireland,—marking the Provinces, the position of six principal Towns, and the course of four of the largest Rivers.

3. Name the six largest Sea-ports of Great Britain, the chief exports from each, and the foreign countries with which they principally trade. I.
PRELIMINARY
EXAMINATION.

4. Enumerate the foreign possessions of Great Britain in Europe and Africa.

5. Explain the following Geographical terms:—

Meridian,	Isothermal line,
Zone,	Plateau,
Ecliptic,	Archipelago.

6. Name the principal Islands in the West Indies, and the countries to which they respectively belong.

7. From what parts of the world do we get our chief supplies of Cotton, Wool, Hemp, Sugar, Coffee, Rice, and Mahogany?

I. 5. *Outlines of English History.*

[N. B. All candidates are required to satisfy the Examiners in this paper. Four questions at least should be attempted.]

1. What Sovereigns were on the throne of England in the years

A. D. 900,	A. D. 1500,
1100,	1600,
1300,	1800?

2. "During the 160 years which preceded the Union of the Roses, nine kings reigned in England. Six of these nine kings were deposed. Five lost their lives as well as their crown."—*Macaulay*.

Give the date of the union here alluded to, and name the kings to whom reference is made in the latter part of this passage.

3. Give an account of the Rebellion in 1745.

4. Name the principal Writers and Statesmen in the reign of Elizabeth or Anne.

5. What were the chief provisions of Magna Charta? Mention instances, in the History of England, in which they were violated.

I.
PRELIMINARY
EXAMINATION.

6. Write a short account of the *origin, progress, and results*
of
The Crusades,
or The War with France under Edward III.
or The Thirty Years' War.

II.

II.
RUDIMENTS
OF FAITH
AND
RELIGION.

The Rudiments of Faith and Religion.

1. Give some account of Melchizedek, Jethro, and Balaam. Quote passages of Scripture where any of them are mentioned.
2. Enumerate the twelve tribes of Israel, and point out which were most distinguished in the history down to the time of Solomon's death. Sketch a map shewing where they were severally placed.
3. Describe shortly the character of Saul.
4. What were the Feast of Tabernacles and the Day of Atonement?
5. Who were Gideon, Jephthah, and Samson ; and against what enemies were they raised up?
6. Describe the rebellion of Absalom.
7. Give some account of the building of the Temple.
8. Give an account of John the Baptist from the Gospels of St. Matthew and St. John, stating what is told of him in each.
9. By whom and when were the Acts of the Apostles written? What do we know of the history of the writer?
10. Which of the Evangelists were Apostles? Give a short account of each.
11. On what occasions was our blessed Lord declared from heaven to be the Son of God? Quote the words, [if you can, in the Greek.]
12. "The queen of the south"—"The men of Nineveh." To what histories do these words in St. Matthew refer? When were they spoken?

13. Give some account of John Mark, and Timothy.
14. What were the circumstances of the conversion of Cornelius? What gave it a peculiar importance?
15. What is said in reference to the two Sacraments in the Gospels of St. Matthew and St. John? What passage of Scripture is used in the Baptismal Service to justify *Infant* Baptism?
16. What are the three Creeds severally called? Account for these names.
17. Give the date of the "Conference at the Savoy," its purpose and issue.
18. Define exactly, from the Catechism and Baptismal Services, the duties of Godfathers and Godmothers.
- * 19. Explain the following words: κράββατος, σύντροφος, τετραδίου, ἐπίτροπος, ἀτενίζειν, δίδραχμον.
- * 20. Give the Greek for the following passage: "Now the Jews' feast of tabernacles was at hand. His brethren therefore said unto him, Depart hence, and go into Judæa, that thy disciples also may see the works that thou doest. For there is no man that doeth any thing in secret, and he himself seeketh to be known openly."

* For those Candidates only who offer themselves for Examination in Greek.

SECTION A.—*English.*

A. 1. *English History and Literature.*

[Candidates are not to attempt more than eight questions in this paper.

It is recommended that two questions should be selected from each Section.

The dates of the events mentioned should be inserted, wherever it can be done.]

SECTION I.

1. Trace the descent of Henry VII, and of Elizabeth of York, from Edward III.

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ENGLISH.

2. Write an account of Perkin Warbeck.
3. Sketch the history of the dissolution of the English monasteries.
4. What were the most important events in the reign of Edward VI?

SECTION II.

1. Mention the principal events in the reign of queen Mary.
2. State the circumstances which led to the execution of Mary, queen of Scots.
3. Write a short history of the Spanish Armada, and of the events which occasioned it.
4. Give some account of the poor law which was framed in the time of queen Elizabeth.

SECTION III.

1. Trace the descent of James I from Henry VII. How was he related to the royal family of France?
2. Sketch the progress of maritime enterprise, from the commencement of the reign of Henry VII to the end of the reign of James I.
3. What were the measures of Charles I which were most offensive to the Commons? Give an account of the Petition of Right.
4. Write a narrative of the events which immediately led to the Restoration.

SECTION IV.

1. Name the principal English translations of the Scriptures which were made before the authorized version.
2. Who were the most famous writers in English in the time of Henry VIII? Give an account of one of them, and mention his principal works.
3. Name the most famous divines and poets of the time of queen Elizabeth, and give the titles of their chief works.

4. Sketch either of the following ;—

A life of William Caxton.

A life of lord Bacon, with a list of his principal works.

A life of Shakspeare, with a list of his tragedies, and a notice of the early editions of his works.

A life of Milton, with the titles of some of his prose works, and a list of the most distinguished poets who were contemporary with him.

A. 2. *Shakspeare's King Lear and Bacon's Essays.*

[N. B. Candidates are not expected to attempt more than six questions in each division of the paper.]

Shakspeare's King Lear.

1. Of what earlier materials did Shakspeare avail himself in writing King Lear ?

2. At what date was King Lear probably written ? What evidence have we on the subject ?

3. Give the sense of the following passages in ordinary prose, explaining more particularly the portions which are printed in Italics :—

a. France in choler parted !
 And the king gone to-night ! *prescribed his power !*
Confined to exhibition ! All this done
Upon the gad !

b. Thy tender-hefted nature shall not give
 Thee o'er to harshness : her eyes are fierce, but thine
 Do comfort, and not burn : 'tis not in thee
 To grudge my pleasures, to cut off my train,
 To bandy hasty words, to *scant my sizes*,
 And, in conclusion, to oppose the bolt
 Against my coming in.

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ENGLISH.

c. *He gives the web and the pin, squints the eye, and makes the hare-lip.*

d. *Swithold footed thrice the old.*

e. All my reports go with the modest truth,
Not more, nor clipped, but so.

4. Explain the allusions in the following passages :—

a. Turn their halcyon beaks
With every gale and vary of their masters.

b. Goose, if I had thee upon Sarum plain,
I'd drive ye cackling home to Camelot.

c. Good King, that must approve the common saw ;
Thou out of heaven's benediction comest
To the warm sun.

d. Thou shalt have as many dolours for thy daughters
as thou canst tell in a year.

5. Give concisely the Plot of King Lear. You may adopt the style of an ancient Chronicle down to the close of Act III. From that point employ the language of modern narrative.

6. State any obvious anachronisms which you remember in King Lear.

7. Quote any passages which you remember in King Lear, which seem to allude to the moral and social condition of England at the time when the play was written ; and specify any allusions to customs and practices belonging to an age less refined and civilized than our own.

8. Quote the description of Dover Cliff ; and discuss its merits as a specimen of descriptive poetry.

9. Quote any *short* passages from King Lear, which strike you as particularly remarkable for pathos, poetical diction, or moral sentiment.

10. Specify any unusual forms or inflections of the following Verbs, which occur in King Lear : Strike, Lance, Pitch, Help, Fall.

*Bacon's Essays.*III.
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A.
ENGLISH.

11. When were Lord Bacon's Essays first published? Give some account of the different editions which were issued in his lifetime.

12. Are the Essays to be counted among Lord Bacon's earlier or later works? Can you recollect any instances in the Essays of his alluding to his own writings?

13. What does Lord Bacon mean by Usury? How does he balance its advantages and disadvantages?

14. What instances of excellency in beautiful persons does Lord Bacon mention? And what instances in deformed persons?

15. Describe a perfect Palace according to Lord Bacon's ideas. What are his remarks on the subject of windows?

16. Give any instances which you remember of ordinary words used by Lord Bacon in the Essays in a sense now unusual.

17. Write down the substance, so far as you remember it, of the Essays *Of Adversity* and *Of Studies*.

18. In what Essay does Lord Bacon treat of Colonization? Name any particulars in which his views on the subject have been confirmed by recent experience.

19. Who are the persons alluded to in the following passages?—

a. The poet that beautified the sect that was otherwise inferior to the rest.

b. A master of scoffing, that in his catalogue of books of a feigned library sets down this title of a book: 'The Morris-dance of Heretics.'

c. *Omnium consensu capax imperii, nisi imperasset.* (One whom all would have considered fit for rule, if he had not ruled.)

20. Explain the following Proverbs:—

Tell a lie, and find a truth.

Let my death come from Spain.

Eat not the heart.

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21. Mention some of the fanciful applications of Heathen Mythology made by Lord Bacon in his Essays.

22. Mention any mistakes which you think that you have observed in Lord Bacon's Essays.

23. Quote any short passages from Lord Bacon's Essays which seem to you especially remarkable for profundity, practical wisdom, or happiness of expression.

A. 3. *Outlines of Political Economy and English Law.*

[N.B. Candidates are expected to attempt in the first instance, the Questions numbered 2, 4, 6, 7, 11, under the head *Political Economy*; and those numbered 1, 5, 8, 12, 15, under the head *English Law*.]

Political Economy.

1. In how many ways, according to Adam Smith, does the division of labour render industry more productive? Can you suggest any others not mentioned by Smith? Can you give any illustration from your own knowledge of the utility of the division of labour?

2. What are the different meanings of the word "value," and by what names does Smith distinguish them from each other?

3. Explain briefly how commerce is assisted, and the production of commodities increased, by the use of money. Why are metals more suitable than any thing else to be used as money?

4. What is meant by the "real" price of commodities, as distinguished from their "nominal" price? Which is of most importance in the ordinary transactions of life?

5. If I wish to compare the worth of a bale of silk in the reign of Queen Elizabeth with its worth at the present day, what standard of value should I take, and why? What standard should I take if the comparison were between the value in 1857 and the value in 1858, and why?

6. The price of every commodity, according to Smith, is made up of three parts, or less than three, but can never consist of more. What are those three parts? In the price of a manufactured article, which is commonly the least important of them? How would you divide the price of a sack of flour?

7. What is the distinction between the natural price of goods and their market price? On what does the market price depend? Can the market price continue very long either above the natural price or below it? Give your reasons.

8. Explain the process by which the market prices of commodities rise above or fall below their natural prices. Explain also the process by which the market price is brought back again to the natural price.

9. Wages are much higher in Australia than in England. Why is this, according to the principles laid down by Smith in his chapter on wages?

10. How does an increase or diminution in the supply of the precious metals affect prices? Is the effect thus produced dependent on the general progress of commerce and civilization, and, if so, in what way?

11. "The most abundant mines either of the precious metals or of the precious stones could add little to the wealth of the world." (Wealth of Nations, b. i. c. 11.) Explain this.

12. Combinations of masters, says Smith, usually prevail against combinations of workmen. Why?

English Law.

1. Blackstone divides the law of England under two general heads. What are they? From what sources is each of them derived? Can you give an example of each or either of them?

2. What is the distinction between general and particular customs? What things are required for the legality of a particular custom?

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3. What is meant by the Prerogative of the Crown? What do we mean when we say, (1) The king can do no wrong; (2) The king never dies?

4. Of how many parts is Parliament composed? What peculiar powers does each of them possess in matters of legislation?

5. In whom is the power vested,

To declare war,
To levy taxes,
To issue proclamations,
To make laws,
To coin money,
To pardon criminals,
To adjourn the Houses of Parliament,
To prorogue Parliament?

6. In what cases, and how far, are Proclamations binding on British subjects?

7. What is the present order of succession to the Crown?

8. What is the nature of the writ of Habeas Corpus? What is the Habeas Corpus Act, and when was it passed? Can you give the words used in Magna Charta respecting the personal liberty of the subject, or the substance of them?

9. What protection does the English constitution afford against the dangers of a standing army?

10. What is meant in law by the word Imprisonment? What is necessary to make imprisonment lawful?

11. What are the powers and duties of a Coroner, and by whom is he appointed?

12. Define a natural-born subject. Distinguish between natural and local allegiance. Can either of them be thrown off, and in what manner?

13. Mention some of the legal incapacities of infancy. What is the legal effect of conveying land to an infant?

14. Into what different kinds are corporations divided? Under what heads do you rank the following?—A Vicar—a Dean and Chapter—a University—the Royal College of Physicians.

15. How are Corporations created? What are the rights and powers which belong to all corporate bodies by their incorporation?

A. 4. Physical, Political, and Commercial Geography.

[Candidates are not to attempt more than eight questions in this paper.

It is recommended that two questions should be selected from each Section.]

SECTION I.

1. Briefly describe the most important natural features of that portion of England which lies south of the Thames, or of that which lies north of the Trent.

2. Give a list, in order, of the chief Headlands, Inlets, Mouths of Rivers, and Seaports, in one of the following coast lines :

- a.* From the Moray Firth to the Humber.
- b.* From the Humber to the Thames.
- c.* From Brest to the Mouth of the Elbe.

3. Write a short sketch of the Physical Geography of the Peninsula of Hindostan, of the United States of America, or of the county in which you reside.

4. Describe the river Jordan, and the lakes which it connects.

SECTION II.

1. To what general cause are the currents of the Ocean ascribed? In what way do they influence climate? Illustrate your answer by an example.

2. What mainly distinguishes the seasons in Pekin, compared with London? To what is the difference owing? Name the causes which influence the distribution of temperature on the surface of the globe.

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3. To what causes are the annual overflows of rivers to be assigned? Describe, and account for, the inundations of the Nile, or those of the Ganges.

4. Name the Coal fields of Great Britain, and describe two of the most important of them.

SECTION III.

1. What are the principal additions which have been made to the British possessions during the present century?

2. Write a list of either, —

a. The Italian States.

b. The States contained in the Austrian Empire.

c. The States contained in the Turkish Empire.

Name the capital city of each state.

3. What is the form of government in each of the following States?—Naples, Saxony, Tuscany, Greece, Baden, Würtemberg, Belgium, Brazil, Egypt, France, Sweden, Chile. Name the capital city of each state.

4. State what you know of the form of government of either British India, the United States of America, or the Chinese Empire.

SECTION IV.

1. Name twelve of the manufacturing towns of England, and state the characteristic manufacture of each. Mention the chief articles of British manufacture in the order of their importance.

2. Trace the line which separates the manufacturing counties of England from those which are almost exclusively agricultural. To what natural cause does the distinction thus indicated owe its origin? Why has this cause operated only in recent times?

3. From what countries do we obtain our largest supplies of Cotton, Flax, Wool, Silk, Sugar, Coffee, Spices, Caoutchouc, Gutta Percha, Timber?

4. Describe, and connect as far as you can with the natural characters of the regions which they respectively inhabit, the predominating occupations, the commerce, and the general condition of the Highlanders, the Lowland Scotch, the Dutch, and the Belgians.

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A. 1—4. *A more advanced Paper.*

1. State the reasons which make the accession of Henry VII. an important epoch in English History.

2. Mention any hereditary qualities apparent in the sovereigns, respectively, of the Tudor and of the Stuart dynasties.

3. What considerations (if any) can be urged in justification of the executions of Sir Thomas More, Anne Boleyn, and Thomas Cromwell?

4. Compare the causes, and the extent, of the persecution of Protestants under Mary, and of Roman Catholics under Elizabeth.

5. What was the secret of the success of Elizabeth in governing, and of the failure of Charles I?

6. Describe, with all the detail which you can give, one of these three events:

- a. The deathbed of Elizabeth.
- b. The execution of Charles I.
- c. The death of Oliver Cromwell.

7. What permanent traces have been left on the English constitution by the Long Parliament?

8. Which of the historical romances of Sir Walter Scott relate to the 16th and 17th centuries? Mention instances

- (a) in which he has deviated from historical truth;
- (b) in which he has brought out strongly any historical characters or incidents of the period.

9. Give an account of the translation of the Bible in the reign of James I. What has been its effect on the English language?

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10. Arrange the works of Milton in chronological order, and shew the additional interest imparted to them by such an arrangement.

11. What changes took place in the value of money between the accession of Henry VII. and the Restoration, from what causes and with what results?

12. "When hempe is spun
England's done."

Give the substance of Lord Bacon's remarks on these lines. Do they in any way bear on the date of Shakspeare's 'King Lear'?

13. With what other plays of Shakspeare has 'King Lear' any affinity, by time, or diction, or arrangement, or characters?

14. Shew how the introduction of the Fool is necessary for the development of the character of Lear and of the moral effect of the play.

15. Compare the characters of Lear and Cordelia with any corresponding characters in ancient tragedy.

16. What are the principal defects and merits of Lord Bacon's style? Compare his style with that of any other English essayist.

17. State briefly the point of the following sentences from Bacon's Essays; with any illustrations of any of them from his life or times.

a. Revenge is a kind of wild justice.

b. As it is noted by one of the Fathers, 'Christ's coat had no seam, but the Church's vesture was of divers colours.'

c. He that hath wife and children hath given hostages to fortune.

d. Those that are first raised to nobility are commonly more virtuous, but less innocent than their descendants.

e. There is a superstition in avoiding superstition.

f. Time is the greatest innovator.

g. The French are wiser than they seem, and the Spaniards seem wiser than they are.

18. Compare and contrast (in connexion with their history) the physical geography of

a. The three southern peninsulas of Europe.

b. The counties of Kent, Cornwall, Somersetshire, and Cumberland.

19. Describe the central mountain-chain of the Old World, under its different names, and in its effect on the history and condition of the countries which it traverses.

20. Mention the phenomena peculiar to the river Nile.

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SECTION B.—*Languages.*

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B. I. *Latin.*

[N. B. Candidates are at liberty to translate into English any one or more of the following passages; but only one is required.

Candidates are recommended to proceed to the translation from English into Latin, and the Questions, before they attempt a second Latin passage.

If two passages are translated, one should be prose, and the other verse.]

Sicelides Musæ, paullo majora canamus;
Non omnes arbusta juvant, humilesque myricæ.
Si canimus silvas, silvæ sint Consule dignæ.

Ultima Cumæi venit jam carminis ætas:
Magnus ab integro seclorum nascitur ordo:
Jam redit et Virgo: redeunt Saturnia regna:
Jam nova progenies cœlo demittitur alto.
Tu modo nascenti puero, quo ferrea primum
Desinet, ac toto surget gens aurea mundo,
Casta fave Lucina: tuus jam regnat Apollo.
Teque adeo, decus hoc ævi, te Consule, inibit,
Pollio; et incipient magni procedere menses.
Te duce, si qua manent, sceleris vestigia nostri
Irrita perpetua solvent formidine terras.
Ille deûm vitam accipiet, divisque videbit
Permixtos heroas, et ipse videbitur illis,
Pacatumque reget patriis virtutibus orbem.

Virgil. Bucolic. IV. 1—17

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Ecce autem gemini a Tenedo tranquilla per alta,
(Horresco referens) immensis orbibus angues
Incumbunt pelago, pariterque ad littora tendunt :
Pectora quorum inter fluctus arrecta, jubæque
Sanguineæ exsuperant undas : pars cetera pontum
Pone legit, sinuantque immensa volumine terga.
Fit sonitus, spumante salo : jamque arva tenebant,
Ardentesque oculos suffecti sanguine et igni,
Sibila lambebant linguis vibrantibus ora.
Diffugimus visu exsanguis. Illi agmine certo
Laocoonta petunt : et primum parva duorum
Corpora natorum serpens amplexus uterque
Implicat, et miseros morsu depascitur artus.
Post ipsum, auxilio subeuntem ac tela ferentem,
Corripiunt, spirisque ligant ingentibus : et jam
Bis medium amplexi, bis collo squamea circum
Terga dati, superant capite et cervicibus altis.

Virgil. Æneid. II. 203—219.

Audiat Lyde scelus atque notas
Virginum pœnas, et inane lymphæ
Dolium fundo pereuntis imo
Seraque fata,
Quæ manent culpas etiam sub Orco.
Impiæ, nam quid potuere majus ?
Impiæ sponso potuere duro
Perdere ferro !
Una de multis, face nuptiali
Digna, perjurum fuit in parentem
Splendide mendax et in omne virgo
Nobilis ævum,
Surge, quæ dixit juveni marito,
Surge, ne longus tibi somnus, unde
Non times, detur ; socerum et scelestas
Falle sorores,
Quæ, velut nactæ vitulos lænæ,
Singulos clien lacerant ; ego illis
Mollior nec te feriam, neque intra
Claustra tenebo.

Me pater sævis oneret catenis,
 Quod viro clemens misero peperci;
 Me vel extremos Numidarum in agros

Classe releget:

I, pedes quo te rapiunt et auræ,
 Dum favet nox et Venus; i secundo
 Omine, et nostri memorem sepulcro
 Scalpe querelam.

Horat. Od. III. xi. 21—48.

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Hæc tu Sidonio potes insignitus amictu
 Dicere? non cultu lingua retenta silet?
 Se quoque nympha tuis ornavit Iardanis armis,
 Et tulit e capto nota tropæa viro.
 I nunc, tolle animos, et fortia gesta recense.
 Quod tu non esses jure, vir illa fuit.
 Qua tanto minor es, quanto te, maxime rerum,
 Quam quos vicisti, vincere majus erat.
 Illi procedit rerum mensura tuarum:
 Cede bonis; heres laudis amica tuæ.
 Proh pudor! hirsuti costas exuta leonis
 Aspera texerunt vellera molle latus.
 Falleris et nescis: non sunt spolia ista leonis,
 Sed tua, tuque feri victor es, illa tui.
 Femina tela tulit Lernæis atra venenis.
 Ferre gravem lana vix satis apta colum;
 Instruxitque manum clava domitricæ ferarum,
 Vidit et in speculo conjugis arma sui.

Ovid. Heroid. Ep. IX. 101—118.

Si te parentes timerent atque odissent tui, neque eos ulla ratione placare posses, ut opinor, ab eorum oculis aliquo concederes: nunc te patria, quæ communis est omnium nostrum parens, odit ac metuit, et jamdiu te nihil judicat nisi de parricidio suo cogitare. Hujus tu neque auctoritatem verebere, neque judicium sequere, neque vim pertimesces? Quæ tecum, Catilina, sic agit, et quodammodo tacita loquitur: Nullum aliquot jam annis facinus exstitit, nisi per te: nullum flagitium sine te: tibi nni multorum civium neces, tibi vexatio direptioque socio-

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rum impunita fuit ac libera : tu non solum ad negligendas leges ac quæstiones, verum etiam ad evertendas perfringendasque valuisti. Superiora illa, quamquam ferenda non fuerunt, tamen, ut potui, tuli : nunc vero me totam esse in metu propter te unum : quidquid increpuerit, Catilinam timeri : nullum videri contra me consilium iniri posse, quod a tuo scelere abhorreat, non est ferendum. Quamobrem discede atque hunc mihi timorem eripe : si est verus, ne opprimar ; sin falsus, ut tandem aliquando tinere desinam.—*Cicero in Catilinam*, I.

Nam quibusdam, quos audio sapientes habitos in Græcia, placuisse opinor mirabilia quædam : (sed nihil est, quod illi non persequantur argutius :) partim fugiendas esse nimias amicitias, ne necesse sit unum sollicitum esse pro pluribus ; satis superque esse suarum cuique rerum ; alienis nimis implicari molestum esse : commodissimum esse, quam laxissimas habenas habere amicitiae : quas vel adducas, quum velis, vel remittas. Caput enim esse ad beate vivendum securitatem ; qua frui non possit animus, si tamquam parturiat unus pro pluribus. Alios autem dicere aiunt multo etiam inhumanius, (quem locum breviter perstrinxi paullo ante :) præsidii adjumentique caussa, non benevolentiae neque caritatis, amicitias esse expetendas. Itaque, ut quisque minimum firmitatis habeat minimumque virium, ita amicitias appetere maxime. Ex eo fieri, ut mulierculæ magis amicitiarum præsidia quærant, quam viri, et inopes, quam opulenti, et calamitosi, quam beati. O præclaram sapientiam ! Solem enim e mundo tollere videntur, qui amicitiam e vita tollunt : qua nihil a diis immortalibus melius habemus, nihil jucundius.—*Cic. de Amicitia*.

Quibus rebus permota civitas atque immutata urbis facies erat. Ex summa lætitia atque lascivia, quæ diuturna quies pepererat, repente omnes tristitia invasit ; festinare, trepidare : neque loco, nec homini cuiquam satis credere ; neque bellum gerere, neque pacem habere : suo quisque metu pericula metiri. Ad hoc mulieres, quibus pro rei magnitudine belli timor insolitus incesserat, afflictare sese, manus supplices ad cælum tendere, miserari parvos liberos, rogitare, omnia pavere ; superbia atque deliciis omissis, sibi patriæque diffidere. At

Catilinæ crudelis animus eadem illa movebat, tametsi præsidia parabantur et ipse lege Plautia interrogatus erat ab L. Paulo. Postremo dissimulandi causa aut sui expurgandi, sicuti jurgio lacesitus foret, in Senatum venit. Tum M. Tullius Consul, sive præsentiam ejus timens, seu ira commotus, orationem habuit luculentam atque utilem reipublicæ, quam postea scriptam edidit.—*Sallust. Bell. Cat.*

Fessis tædio tot malorum nivis etiam casus, occidente jam sidere Vergiliarum, ingentem terrorem adjecit. Per omnia nive oppleta quum, signis prima luce motis, segniter agmen incederet, pigritiaque et desperatio in omnium vultu emereret; prægressus signa Hannibal in promontorio quodam, unde longe ac late prospectus erat, consistere jussis militibus Italiam ostentat, subjectosque Alpinis montibus Circumpadanos campos: mœniaque eos tum transeendere non Italiæ modo, sed etiam urbis Romanæ: cetera plana, proclivia fore: uno, aut summum altero prælio arcem et caput Italiæ in manu ac potestate habituros. Procedere inde agmen cœpit; jam nihil ne hostibus quidem, præter parva furta per occasionem, tentantibus. Ceterum iter multo, quam in adscensu fuerat, (ut pleraque Alpium ab Italia sicut breviora, ita adrectiora sunt) difficilior fuit: omnis enim ferme via præceps, angusta, lubrica erat: ut neque sustinere se a lapsu possent; nec, qui paullulum titubassent, hædere afflictis vestigio suo; alique super alios, et jumenta et homines, occiderent.—*Liv. XXI.*

Translate into Latin:—

As soon as the freedman was gone out, he fixed the hilt of his sword upon the ground, and holding it with both hands, fell upon it with so much force that he expired with one groan. The servants who waited without heard the groan, and burst into a loud lamentation. The soldiers ran to the gates with the most pitiable wailings and most unfeigned grief, reproaching themselves for not guarding their emperor, and preventing his dying for them. Some kneeled and kissed his wound, some grasped his hand, and others prostrated themselves on the

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ground, and adored him at a distance. Nor did their affection cease with his death; it survived the grave, and terminated in the destruction of Vitellius.

Questions.

Two at least of the first six questions are to be attempted.

1. Mention any irregularities in the declension of *dea*, *filius*, *domus*, *laurus*, *bos*, *iter*, *locus*, *cælum*.

2. Decline *obex*, *obses*, *duo*, *celer*, *impar*; and form the comparative and superlative degrees of *agilis*, *dexter*, *nequam*, *munificus*.

3. State the genders of *lux*, *frons*, *pons*, *specus*, *vulgus*, *advena*, *papaver*.

4. To what conjugations do the following verbs severally belong?—*Veneo*, *venio*, *jacio*, *tribuo*, *fluctuo*, *cubo*, *dīco*, *dico*.

5. Form the perfect indicative and supine of the following verbs: *lavo*, *meto*, *lino*, *adoleasco*, *vincio*, *vinco*; and the perfect indicative of *comminiscor*, *ordior*, *metior*, *expergiscor*, *fatisco*, *fateor*.

6. Conjugate *aio*, *inquam*, *memini*, *salve*. How is *possum* formed in the third person plural of the *imperfect* and *future* tenses indicative?

7. What cases do *reminiscor*, *potior*, *doceo*, *moneo*, *caveo*, *metuo*, *consulo*, *tempero*, *miseret*, and *interest*, govern? Give examples.

8. After what particles is *quis* used instead of *aliquis*? When is *quod* used instead of *quid*?

9. What are the different classes of numerals, and how are they used? To which class do *binus*, *tertius*, and *quatuor* respectively belong? Write out in Latin words 14, 18, 56, 560.

10. What is the meaning of the particles *ne quidem*, when they occur in the same clause? Give the rule for their use.

11. Distinguish *aut ... aut, vel ... vel, sive ... sive*;—*aliquis, quidam, quisquam*;—*non nemo, nemo non*;—*quum, quando*;—*iracundus, iratus*;—*quercus, quercetum*.

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12. Write out the Latin terms expressing degrees of relationship and affinity, so far as you remember them, with the corresponding words in English.

13. What is the Latin for "June 1st," "June 10th," "June 30th?"

14. Mention some of the most common metres used by the Latin poets, with examples.

15. Translate into Latin :

- a. I fear he will come.
- b. I fear he will not come.
- c. I wish he may come.
- d. I wish he had come.
- e. I hope he will come.
- f. I hope he will.
- g. I doubt whether it is so.
- h. I do not doubt that it is so.
- i. I came to London, which is a large city upon the river Thames.
- k. At Rome—at Carthage—at Corinth—at Athens—at Lacedæmon.

16. Translate into *idiomatic* English :

- a. O tempora ! O mores !
 - b. Videndum est ut ea liberalitate utamur, quæ prosit amicis, obsit nemini.
 - c. Gratulor tibi, quum tantum vales apud Dolabellam.
 - d. O fortunatum adolescentem, qui tuæ virtutis Homerum præconem inveneris !
 - e. Major sum quam cui possit fortuna nocere.
 - f. Quæ tua est virtus, facile expugnabis.
 - g. Omnes laudare fortunas meas, qui gnatum haberem tali ingenio præditum.
 - h. Non lubet mihi deplorare vitam, quod multi, et ii docti, sæpe fecerunt.
-

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B. 2. *Greek.*

[N. B. Candidates are at liberty to translate into English any one or more of the following passages : but only one is required.

Candidates are recommended to proceed to the translation from English into Greek and the questions, before they attempt a second Greek passage.

If two passages are translated, one should be prose and the other verse.]

Κέκλυτε νῦν καὶ ἐμείο· μάλιστα γὰρ ἄλγος ἰκάνει
θυμὸν ἐμόν· φρονέω δὲ διακρινθήμεναι ἥδη
Ἀργείους καὶ Τρῶας, ἐπεὶ κακὰ πολλὰ πέποσθε
εἶνεκ' ἐμῆς ἔριδος καὶ Ἀλεξάνδρου ἔνεκ' ἀρχῆς.
ἡμέων δ' ὅποτέρῳ θάνατος καὶ μοῖρα τέτυκται,
τεθναίῃ· ἄλλοι δὲ διακρινθεῖτε τάχιστα.
οἴσσετε δ' ἄρν', ἕτερον λευκὸν, ἑτέρην δὲ μέλαιναν,
Γῇ τε καὶ Ἡελίῳ· Διὶ δ' ἡμεῖς οἴσομεν ἄλλον.
ἄξετε δὲ Πριάμοιο βίην, ὅφρ' ὄρκια τάμνη
αὐτὸς, ἐπεὶ οἱ παῖδες ὑπερφίαλοι καὶ ἄπιστοι,
μή τις ὑπερβασίῃ Διὸς ὄρκια δηλήσῃται.—Hom. Il. iii.

ὦ μῖσος, ὦ μέγιστον ἐχθίστη γύναι
θεοῖς τε κάμοι παντί τ' ἀνθρώπων γένει,
ἣτις τέκνοισι σοῖσιν ἐμβαλεῖν ξίφος
ἔτλης τεκοῦσα, κάμ' ἄπαιδ' ἀπώλεσας·
καὶ ταῦτα δράσας ἥλιόν τε προσβλέπεις
καὶ γαῖαν, ἔργον τλᾶσα δυσσεβέστατον.
ὅλοι'· ἐγὼ δὲ νῦν φρονῶ, τότ' οὐ φρονῶν
ὅτ' ἐκ δόμων σε βαρβάρου τ' ἀπὸ χθονὸς
Ἑλλην' ἐς οἶκον ἡγόμην, κακὸν μέγα,
πατρός τε καὶ γῆς προδότιν ἢ σ' ἐθρέψατο.—Eurip. Med.

Οὔτοι δοκοῦσιν οἱ νόμοι ἄρχεσθαι τοῦ κοινοῦ ἀγαθοῦ ἐπιμελούμενοι· οὐχ ὁμοίως γὰρ ταῖς πλείσταις πόλεσιν ἄρχονται. Αἱ μὲν γὰρ πλείσται πόλεις, ἀφείσαι παιδεύειν ὅπως τις ἐθέλοι τοὺς ἑαυτοῦ παῖδας καὶ αὐτοὺς τοὺς πρεσβυτέρους ὅπως ἐθέλουσι διάγειν, ἐπιτάττουσιν αὐτοῖς μὴ κλέπτειν, μὴ ἀρπάζειν, μὴ βία εἰς οἰκίαν παρίεναι, μὴ παίειν ὃν μὴ δίκαιον, μὴ μοιχεύειν, μὴ ἀπειθεῖν ἄρχοντι καὶ τᾶλλα τὰ τοιαῦτα ὡσαύτως· ἣν δέ τις τούτων τι παραβαίνει, ζημίας

αὐτοῖς ἐπέθεσαν. Οἱ δὲ Περσικοὶ νόμοι προλαμβάνοντες ἐπιμέλονται ὅπως τὴν ἀρχὴν μὴ τοιοῦτοι ἔσονται οἱ πολῖται ὥστε πονηροῦ τινος ἔργου ἢ αἰσχροῦ ἐφίεσθαι.—Xen. Cyrop.

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Καὶ ὅτε δὴ ἦν δεκαέτης ὁ παῖς, πρῆγμα ἐς αὐτὸν τοιόνδε γενόμενον ἐξέφηνέ μιν. ἔπαιζε ἐν τῇ κώμῃ ταύτῃ ἐν τῇ ἦσαν καὶ αἱ βουκολίαι αὐται, ἔπαιζε δὲ μετ' ἄλλων ἡλίκων ἐν ὁδῷ· καὶ οἱ παῖδες παίζοντες εἵλοντο ἑωυτῶν βασιλέα εἶναι τοῦτον δὴ τὸν τοῦ βουκόλου ἐπὶ κλησιν παῖδα. ὁ δὲ αὐτῶν διέταξε τοὺς μὲν, οἰκίας οἰκοδομέειν· τοὺς δὲ, δορυφόρους εἶναι· τὸν δὲ κου τινὰ αὐτῶν, ὀφθαλμὸν βασιλέος εἶναι· τῷ δὲ τινι, τὰς ἀγγελίας ἐσφέρειν ἐδίδου γέρας· ὡς ἐκάστῳ ἔργον προστάσσω. εἰς δὴ τούτων τῶν παιδιῶν συμπαίζων, ἑὼν Ἀρτεμβάρους παῖς, ἀνδρὸς δοκίμου ἐν Μήδοισι· οὐ γὰρ δὴ ἐποίησε τὸ προσταχθὲν ἐκ τοῦ Κύρου· ἐκέλευε αὐτὸν τοὺς ἄλλους παῖδας διαλαβεῖν.—Herod. i.

Πρὸς θεῶν, τίς οὕτως ἐστὶν εὐηθὴς ὑμῶν, ὅστις ἀγνοεῖ τὸν ἐκείθεν πόλεμον δεῦρο ἵζοντα, ἂν ἀμελήσωμεν; ἀλλὰ μὴν εἰ τοῦτο γενήσεται, δέδοικα ὧ ἄνδρες Ἀθηναῖοι, μὴ τὸν αὐτὸν τρόπον ὥσπερ οἱ δανειζόμενοι ῥαδίως ἐπὶ τοῖς μεγάλοις τόκοις μικρὸν εὐπορήσαντες χρόνον, ὕστερον καὶ τῶν ἀρχαίων ἀπέστησαν, οὕτω καὶ ἡμεῖς ἂν ἐπὶ πολλῷ φθανῶμεν ἐρραθυμηκότες καὶ ἅπαντα πρὸς ἡδονὴν ζητοῦντες, πολλὰ καὶ χαλεπὰ ὦν οὐκ ἡβουλόμεθα ὕστερον εἰς ἀνάγκην ἔλθωμεν ποιεῖν καὶ κινδυνεύσωμεν περὶ τῶν ἐν αὐτῇ τῇ χώρᾳ.—Demosth. Olynth. i.

Questions.

1. Divide the Greek letters into *mutes* and *liquids*, and subdivide the mutes into *Tenues*, *Mediae*, and *Aspiratae*.
2. Decline nouns of the first declension with the pure vowel or ρ, and shew their distinctive features.
3. Give the Comparative and Superlative of ἀγαθός, ταχὺς, and μέγας.
4. Decline throughout οὗτος.
5. Give uses of φθάνω and οἴχομαι with a Participle.
6. State the difference between the Subjunctive and Optative Moods in dependent clauses.

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7. Give instances of *ἵνα*, *ὥς*, or *ὅπως*, with the Indicative, and of the general use of *οὐ* and *μή*.

8. Ἦδετο ἐπ' ἀγαθοῖς τοῖς ἀνδράσιν. ἦδετο ἐπ' ἀγαθοῖς ἀνδράσιν.
What is the difference in the above and in the following?—
ὁ μέγας βασιλεύς, *μέγας ὁ βασιλεύς*, *μέγας τις βασιλεύς*.

9. Translate the following, and parse the Verbs:—

ὦ παγκακίστη, καὶ φίλων διαφθορὰ,
οἷ' εἰργάσω με. Ζεὺς σ' ὁ γεννήτωρ ἐμὸς
πρόρριζον ἐκτρίψειεν, οὐτάσας πυρί.
οὐκ εἶπον; οὐ σῆς προουνοσηάμην φρενὸς
σιγαῖν ἐφ' οἷσι νῦν ἐγὼ κακύνομαι;

10. Ἐπίστασαι εἴκειν, δῆλος εἶ εἴκων. Translate, and explain the difference of construction in these examples.

Translate into Greek:—

When I am dead, my sons, put my body not in gold, nor in
τελευτάω *τίθημι*
silver, nor in any thing else, but give it back as soon as possi-
ἀποδίδωμι
ble to the earth.

Fare ye well, dear sons, and all ye friends present and absent,
Χαίρω *παῖς* *παρὼν* *ἀπὼν*
fare ye well.

Thus having spoken, he covered himself up and died.
συγκαλύπτω *τελευτάω*

B. 1. 2. *Higher Classical Paper.*

I. Translate into Latin Elegiacs:—

But why, alas! do mortal men in vain
Of fortune, fate, or Providence complain?
God gives us what he knows our wants require,
And better things than those which we desire.
Some pray for riches: riches they obtain,
But watched by robbers for their wealth are slain.

Some pray from prison to be freed ; and come,
When guilty of their vows, to fall at home,
Murdered by those they trusted with their life,
A favoured servant or a bosom wife.
Such dear-bought blessings happen every day,
Because we know not for what things to pray.

Dryden.

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Translate into Greek Trimeter Iambics :

I, before all the daughters of my tribe,
And of my nation, chose thee from among
My enemies, lov'd thee, as too well thou know'st,—
Too well ; unbosomed all my secrets to thee,
Not out of levity, but overpower'd
By thy request, who could deny thee nothing ;
Yet now am judged an enemy. Why then
Didst thou at first receive me for thy husband,
Then, as since then, thy country's foe profest ?
Being once a wife, for me thou wast to leave
Parents and country. Nor was I their subject ;
Not under their protection, but my own.

Milton.

II. Translate into English :—

1. Κισσόκομον Διόνυσσον, ἐρίβρομον, ἄρχομ' αἰεῖδεν,
Ζηνὸς καὶ Σεμέλης ἐρικυδέος ἀγλαὸν υἱὸν,
ὃν τρέφον ἡύκομοι Νύμφαι, παρὰ πατρὸς ἀνακτος
δεξιόμεναι κόλποισι, καὶ ἐνδυκέως ἀτίταλλον,
Νύσσης ἐν γυάλοις· ὁ δ' ἀέξετο πατρὸς ἔκητι
ἄντρῳ ἐν εὐώδει, μεταρίθμιος ἀθανάτοισιν.
αὐτὰρ ἐπειδὴ τόνδε θεαὶ πολύμνον ἔθρεψαν,
δὴ τότε φοιτίζεσκε καθ' ὑλήεντας ἐναύλους,
κισσῶ καὶ δάφνῃ πεπυκασμένος· οἱ δ' ἅμ' ἔποντο
Νύμφαι, ὁ δ' ἐξηγεῖτο· βρόμος δ' ἔχεν ἄσπετον ὕλην.

Ex Homeri Hymn.

2. Ἡ ὑγίεια ταῖς ἡδοναῖς, ὥσπερ ἡ γαλήνη ταῖς ἀλκυόσιν,
ἀσφαλὴ καὶ καλὴν γένεσιν καὶ λοχείαν ἐνδίδωσι. κομφῶς γὰρ ἔοικεν
ὁ Πρόδικος εἰπεῖν, ὅτι τῶν ἡδυσμάτων ἀριστόν ἐστι τὸ πῦρ·
ἀληθέστερον γὰρ ἢ τις εἴποι τὴν ὑγίειαν ἡδυσμα θεϊότατον εἶναι
καὶ προσηνέστατον. Ἐφθὰ μὲν γὰρ καὶ ὀπτὰ καὶ πεπτὰ βρώματα

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νοσοῦσιν ἢ κραιπαλῶσιν ἢ ναυτιῶσιν οὐδεμίαν ἡδονὴν οὐδὲ χάριν ἀποδίδωσι· καθαρὰ δὲ καὶ ἀκραιφνῆς ὄρεξις ὑγιαίνουντι σώματι πᾶν ἡδὺ ποιεῖ, καὶ ἀρπαλέον (ὥς Ὅμηρος ἔφη), καὶ πρόσφορον.

Plutarch.

3. Nec jam fama mali tanti, sed certior auctor
Advolat Æneæ, tenui discrimine leti
Esse suos; tempus versis succurrere Teucris.
Proxima quæque metit gladio, latumque per agmen
Ardens limitem agit ferro; te, Turne, superbum
Cæde nova quærens. Pallas, Evander, in ipsis
Omnia sunt oculis; mensæ quas advena primas
Tunc adiit, dextræque datæ. Sulmone creatos
Quatuor hic juvenes, totidem quos educat Ufens
Viventes rapit, inferias quos immolet umbris,
Captivoque rogi perfundat sanguine flammæ.

Virgil.

III. Questions.

1. In what dialect is the first passage under II? Note all words in that passage differing either from Attic or Ionic forms.

2. Οὐ πράξας,—μὴ πράξας. What is the difference of these phrases? Translate them both into Latin and English, and shew the distinction between οὐ and μὴ.

3. Correct, with reasons for your correcting, these passages:

(1) ἔπεσθέ μου φέροντες ἄθλιον βάρος.

(2) ὑμεῖς δὲ τῇ γῇ τῇδε μὴ βαρὺν κότον
σκήψασθε, μὴ θυμοῦσθε, μηδ' ἀκαρπίαν
τεύχετε.

Æschylus.

(3) οὐ δεινόν ἐστι, προσφάτας μὲν εἰ τύχη
πωλῶν τις ἰχθῦς, συνάγοντα τὰς ὀφρυῖς
τοῦτον, σκυθρωπάζοντά θ' ἡμῖν προσλαλεῖν·
ἐὰν δὲ σαπροῦς, κομιδῇ παίζειν καὶ γελᾶν;

Aristophanes.

(4) Decrevit Senatus, Legatos Jugurthæ in diebus posteris
discessuros esse.

(5) Quum vita sine amicis insidiarum et metus plena est,
ratio ipsa monuit ut amicitias compararemus.

- (6) In Hortensio memoria fuit tanta, ut, quæ secum commentatus erat, ea sine scripto verbis eisdem redderet quibus cogitaverat.

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4. What is meant by *oratio obliqua*? Turn the following passage into *oratio obliqua*, first in English, then in Latin:—

“I crossed the Rhine not of my own accord, but at the request and demand of the Gauls. The settlements which I occupy were granted by themselves; the tribute I receive is such as by the right of war the conquerors are wont to impose upon the conquered. If you wish to try your fortune once more, once more am I prepared to decide the contest. I am bound to suspect that Cæsar, having an army in Gaul, has it there for the purpose of crushing me; and unless he departs, I will hold him not as a friend, but as an enemy.”

5. Give the proper senses of *μετά* and *παρά*, and the several cases they govern. Shew how the proper senses of each Preposition vary with the case.

6. The proper senses and derivations (if any) of the following words:—*δεῖ, χρή, ἡνία, σιγαλόεντα, ἄνεω, παραβάτης, ἔφοροι, μὴν ἰστάμενος, εὐρνάγνια, κατηφεία, βασίλειᾶ, βασιλείᾱ.*

7. Give a grammatical account of the following forms:—*λέκτο, γέντο, ἐγρήγορθε, πέποσθε, σκιάωντο, κατέπαλτο, ἀπηύρα.*

B. 3. French.

I. Translate into English one of the following passages:

A défaut d'une définition précise et directe, l'esprit français se caractériserait suffisamment par la nature même de la langue française, par sa constitution, par ses qualités qui, entre toutes les langues littéraires modernes, la rendent la plus propre à exprimer des idées générales.

Je regarde d'abord sa nature, et je n'y trouve ni accent ni inversion. Or, c'est par l'accent et l'inversion, ce semble, que se marque, dans une langue, le tempérament particulier d'une

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nation ; c'en est le caractère le plus local. L'un dépend d'une disposition des organes de la voix, déterminée par la constitution physique du pays ; l'autre dépend du tour d'imagination propre à ce pays. Notre langue coule des lèvres sans contraction et sans effort. Les aspirations qui renforcent les sons y sont si rares, qu'elles figurent dans le corps des règles, à titre d'exceptions ; et les atténuations ou les élisions de certaines parties de mots, qui semblent des moyens d'éluder certaines difficultés de prononciation, y sont inconnues. Notre langue est unique sous ce rapport, avec quelque langue, ancienne ou moderne, qu'on la compare. Je veux bien n'y pas voir un privilège ; mais si ce caractère n'est propre qu'à elle, et si d'ailleurs il n'a pas empêché que depuis trois siècles, l'Europe politique et savante n'ait appris le français, il faut bien n'y pas voir une marque d'infériorité.

(D. NISARD, Histoire de la littérature française.)

L'Oiseleur, l'Autour et l'Alouette.

Les injustices des pervers
Servent souvent d'excuse aux nôtres.
Telle est la loi de l'univers :

Si tu veux qu'on t'épargne, épargne aussi les autres.

Un manant au miroir prenait des oisillons,
Le fantôme brillant attire une alouette :
Aussitôt un autour, planant sur les sillons,
Descend des airs, fond et se jette
Sur celle qui chantait, quoique près du tombeau.
Elle avait évité la perfide machine,
Lorsque, se rencontrant sous la main de l'oiseau,
Elle sent son ongle maline. ^a

Pendant qu'à la plumer l'autour est occupé,
Lui-même sous les rets demeure enveloppé :
Oiseleur, laisse-moi, dit-il en son langage,
Je ne t'ai jamais fait de mal.
L'oiseleur repartit : ce petit animal
T'en avait-il fait davantage ?—(La Fontaine.)

(a) Remark on the words *ongle maline*.

N. B. Candidates are not obliged to *translate* the following passage if they have translated either of the preceding passages, *but they must answer some of the questions which refer to it.*

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Les yeux des oiseaux^a de proie^b sont d'une sensibilité si grande, qu'ils paraissent être éblouis par la clarté du jour, et entièrement offusqués par les rayons du soleil^c; il leur faut une lumière plus douce, telle que celle de l'aurore naissante ou du crépuscule tombant. C'est alors qu'ils sortent^d de leurs retraites pour chasser ou plutôt pour chercher leur proie, et ils font cette quête^e avec de grands avantages, car^f ils trouvent, dans ce temps, les autres oiseaux ou les petits animaux endormis ou prêts à l'être^g. Les nuits où la lune brille, sont pour eux les beaux jours, les jours de plaisirs, les jours d'abondance, pendant lesquels ils chassent plusieurs heures de suite et se pourvoient^h d'amples provisions: les nuits où la lune fait défaut sont beaucoup moins heureuses; ils n'ont guère qu'une heure le matin et une heure le soir, pour chercherⁱ leur subsistance: car il ne faut pas croire que la vue de ces oiseaux, qui s'exerce si parfaitement à une faible lumière, puisse se passer de toute

- (a) Les yeux des oiseaux
 - 1. Give the singular of these words.
- (b) Oiseaux de proie
 - 2. Why is the article omitted before the noun *proie*?
- (c) Les rayons du soleil
 - 3. Why is the article used with *soleil*?
- (d) Ils sortent
 - 4. With what auxiliary is *sortir* conjugated?—compare with *entrer*, and give the reason why they both take the same.
- (e) Quête
 - 5. Give the literal translation of this word, and account for the accent.
- (f) Car
 - 6. What is the difference between *car* and *parce que*? With what English words do they correspond?
- (g) Prêts à l'être
 - 7. Of what word does *l'* take the place? Could it be omitted?
- (h) Se pourvoient de provisions
 - 8. Remark on the use of the preposition *de* in similar cases:—Être satisfait de quelqu'un—Couvrir de fleurs—Remplir d'espérances.
- (i) Pour chercher
 - 9. When is *pour* used in French to translate the preposition *to*?

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lumière, et qu'elle perce en effet dans l'obscurité la plus profonde. Dès que la nuit est close, ils cessent de voir; ils ne diffèrent pas, à cet égard, des autres animaux, tels que les lièvres, les loups, les cerfs, qui sortent, le soir, des bois pour repaître ou pour chasser pendant la nuit: seulement ces animaux voient encore mieux le jour que la nuit, au lieu que la vue des oiseaux nocturnes est si fort offusquée pendant le jour, qu'ils sont obligés^k de se tenir dans le même lieu sans bouger, et que, quand on les force^l à en sortir, ils ne peuvent faire que de très petites courses, des vols courts et lents, de peur de se heurter: les autres oiseaux qui s'aperçoivent de leur crainte et de la gêne de leur situation, viennent^m à l'envi les insulter. L'oiseau de proie, perché sur sa branche, immobile, étonné, entend leurs mouvements, leurs cris, qui redoublent sans cesse, parce qu'il n'y répond que par des gestes bas, en tournant sa tête, ses yeux et son corps d'un air ridicule; il se laisse même assaillir et attaquer sans se défendre; les plus petits, les plus faibles de ses ennemis, sont les plus ardents à le tourmenter, les plus opiniâtres à le huer.

(j) Puisse se passer de toute lumière

10. Translate this phrase—Why is the verb *pouvoir* in the subjunctive mood?

(k) Ils sont obligés de se tenir

(l) Quand on les force

11. Compare these two phrases in the text, and explain why the passive is used in the first and the active in the second.

(m) Viennent les insulter

12. Why is there no preposition used after *venir*?

Explain the difference of construction in the following:

Je viens le voir,

Je viens de le voir,

J'étais venu pour le voir.

II. Translate into French the following sentences, and refer them to rules.

1. Do you know him?—Not at all; but I know where he lives, and can give you his direction.

2. The letter he expected has just come; send it to him at once.

3. What shall we do next week, when all our friends are gone?—What you please.

4. I do not think he will leave Paris before he hears from his father.

5. I think he will arrive in time to accompany them into the country.

6. I had been three days in Berlin when I fell ill, and was obliged to stay there two whole months.

7. This is the largest tree I have ever seen.

8. If he were to come to-morrow, he would be very much disappointed.—Has he told your brother whether he would come or not?

9. It was in Geneva I met your cousins, and we saw each other every day.

10. Make him sing; I should like so much to hear him.—I will make him sing a French song, if you like.

III. Write in French a letter describing a visit into the country,

Or,

Translate into French one of the following passages:

MY DEAR CHARLES,

Edinburgh, 19th Dec. 1820.

We begin to be afraid that, in improving your head, you have lost the use of your fingers, or got so deep into the Greek and Latin grammar, that you have forgotten how to express yourself in your own language. To ease our anxious minds in these important doubts, we beg you will write as soon as possible, and give us a full account of your proceedings, as I do not approve of long intervals of silence, or think that you need to stand very rigorously upon the exchange of letters, especially as mine are so much the longest.

* * *

It is near Christmas-time, and it comes sadly round to me as reminding me of your excellent grandmother, who was taken from us last year at this time. Do you, my dear Charles, pay attention to the wishes of your parents while they are with you, that you may have no self-reproach when you think of them at a future period.

* * *

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We will remember your health in a glass of claret just about six o'clock at night; so that you will know exactly (allowing for variation of time) what we are doing at the same moment.

I am, my dear boy, always your affectionate Father,

(WALTER SCOTT.)

There is a satisfaction in the consciousness of being beloved, which, to a person of delicacy and sensibility, is of more importance to happiness, than all the advantage which he can expect to derive from it. What character is so detestable as that of one who takes pleasure to sow dissensions among friends, and to turn their most tender love into mortal hatred? Yet wherein does the atrocity of this so much abhorred injury consist? Is it in depriving them of the frivolous good offices which, had their friendships continued, they might have expected from one another? It is in depriving them of that friendship itself, in robbing them of each other's affections, from which both derived so much satisfaction; it is in disturbing the harmony of their hearts, and putting an end to that happy commerce which had before subsisted between them. These affections, that harmony, this commerce, are felt, not only by the tender and the delicate, but by the rudest vulgar of mankind, to be of more importance to happiness than all the little services which could be expected to flow from them.—*Smith, Of the Social Passions.*

B. 4. *German.*

Translate into English one of the three following passages:—

Wilhelm der Erste, Prinz von Oranien, stammte aus dem deutschen Fürstenhause Nassau, welches schon acht Jahrhunderte geblüht, mit dem österreichischen eine Zeitlang um den Vorzug gerungen und dem deutschen Reiche einen Kaiser gegeben hatte. Ausser verschiedenen reichen Ländereien in den Niederlanden, die ihn zu einem Bürger dieses Staats und einem gebornen Vasallen Spaniens machten, besass er in Frankreich noch das unabhängige Fürstenthum Oranien. Wilhelm ward im Jahre 1533 zu Dillenburg, in der Grafschaft Nassau, von einer Gräfinn Stolberg geboren. Sein Vater, der

Graf von Nassau, desselben Namens, hatte die protestantische Religion angenommen, worin er auch seinen Sohn erziehen liess; Karl der Fünfte aber, der dem Knaben schon frühzeitig wohl wollte, nahm ihn sehr jung an seinen Hof und liess ihn in der römischen aufwachsen. Dieser Monarch, der in dem Kinde den künftigen grossen Mann schon erkannte, behielt ihn neun Jahre um seine Person, würdigte ihn seines eigenen Unterrichts in Regierungsgeschäften und ehrte ihn durch ein Vertrauen, welches über seine Jahre ging. Ihm allein war es erlaubt, um den Kaiser zu bleiben, wenn er fremden Gesandten Audienz gab—*Schiller's Geschichte des Abfalls der vereinigten Niederlande.*

Diesseits des Waldes, ach diesseits, da zog mir das Elend entgegen. Meine Frau kam gegangen mit strömenden Augen wie zwei Bäche; sie hatte Trauerkleider angelegt. "O lieber Gott," ächzte ich, "wo ist unser liebes Kind? Sag'an." "Bei dem, den Du rufest, lieber Mann," entgegnete sie, und wir gingen nun stillschweigend mit einander in die Hütte.—Ich suchte nach der kleinen Leiche; da erfuhr ich erst wie Alles gekommen war. Am See-Ufer hatte meine Frau mit dem Kinde gesessen, und wie sie so recht sorglos und seelig mit ihm spielt, bückte sich die Kleine auf einmal vor, als sähe sie etwas ganz Wunderschönes im Wasser; meine Frau sieht sie noch lachen, den lieben Engel, und mit den Händchen greifen; aber im Augenblick schiesst sie ihr durch die rasche Bewegung aus den Armen, und in den feuchten Spiegel hinunter.—*F. Baron de la Motte Fouqué's Undine.*

Ein Löwe würdigte einen drolligten Hasen seiner nähern Bekanntschaft. Aber ist es denn wahr, fragte ihn einst der Hase, dass euch Löwen ein elender krähender Hahn so leicht verjagen kann? Allerdings ist es wahr, antwortete der Löwe; und es ist eine allgemeine Anmerkung, dass wir grosse Thiere durchgängig eine gewisse kleine Schwachheit an uns haben. So wirst du zum Exempel von dem Elephanten gehört haben, dass ihm das Grunzen eines Schweines Schauder und Entsetzen erweckt. Wahrhaftig? unterbrach ihn der Hase. Ja nun begreif' ich auch, warum wir Hasen uns so entsetzlich vor den Hunden fürchten.—*Lessing's Fabeln.*

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Translate into English one of the three following passages :—

Du flehst erathmend mich zu schauen,
Meine Stimme zu hören, mein Antlitz zu sehn;
Mich neigt dein mächtig Seelenflehn,
Da bin ich !—Welch erbärmlich Grauen
Fasst Übermenschen dich? Wo ist der Seele Ruf?
Wo ist die Brust, die eine Welt in sich erschuf,
Und trug und hegte, die mit Freudebeben
Erschwoll, sich uns, den Geistern, gleich zu heben?
Wo bist Du, Faust, dess Stimme mir erklang,
Der sich an mich mit allen Kräften drang?
Bist Du es, der, von meinem Hauch unwittert,
In allen Lebenstiefen zittert,
Ein furchtsam weggekrümmter Wurm !

Goethe's Faust.

Ach ! die Gattin ist's die theure,
Ach ! es ist die treue Mutter,
Die der schwarze Fürst der Schatten
Wegführt aus dem Arm des Gatten,
Aus der zarten Kinder Schaar,
Die sie blühend ihm gebar,
Die sie an der treuen Brust
Wachsen sah mit Mutterlust—
Ach ! des Hauses zarte Bande
Sind gelöst auf immerdar ;
Denn sie wohnt im Schattenlande
Die des Hauses Mutter war.

Schiller's Glocke.

Die Luft ist blau, das Thal is grün,
Die kleinen Maienglocken blühn,
Und Schlüsselblumen drunter ;
Der Wiesengrund
Ist schon so bunt,
Und mahlt sich täglich bunter.

L. H. C. Hölty.

Translate into German one of the three following passages ;
but if none is attempted, turn at once to the "Gram-
matical Questions."*

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It is observable, that in all ages and regions, the several nations of the world, however various and opposite in their characters, inclinations, and manners, have always united in one essential point,—the inherent opinion of an adoration due to a Supreme Being, and of external methods necessary to evince such a belief. Into whatever country we cast our eyes, we find priests, altars, sacrifices, festivals, religious ceremonies, temples, or places consecrated to religious worship. In every people we discover a reverence and awe of the Divinity ; a homage and honour paid to Him ; and an open profession of an entire dependence upon Him in all their undertakings and necessities,—in all their adversities and dangers.

Of all the quadruped animals the horse seems the most beautiful : the noble largeness of his form, the glossy smoothness of his skin, the graceful ease of his motions, and the exact symmetry of his shape, have taught us to regard him as the first, and as the most perfectly formed : and yet, what is extraordinary enough, if we examine him internally, his structure will be found the most different from that of man of all other quadrupeds whatsoever.

A conceited gnat, fully persuaded of his own importance, having placed himself on the horn of a bull, expressed great uneasiness, lest his weight should be incommodious : and with much ceremony begged the bull's pardon for the liberty he had taken ; assuring him that he would immediately remove if he pressed too hard upon him. Give yourself no uneasiness on that account, replied the bull, I beseech you : for as I never perceived when you sat down, I shall probably not miss you whenever you think fit to rise up.

* Those who can write the German character with facility are at liberty to do so.

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[These Questions were printed on a foolscap sheet of paper, in order to save the Candidates time, as they had only to fill up the blanks with their answers.]

Grammatical Questions.

1. Parse :—

an,	Eigensinn,
blieb,	neun,
finster,	welches,
noch,	sein,
ward,	das,
dass,	entworfen.
war,	sich,

2. Decline the adjective *gross* preceded by the definite article in the

	MASCULINE.	FEMININE.	NEUTER.	PLURAL.
Nom.	<i>gross</i>	<i>gross</i>	<i>gross</i>	<i>gross</i>
Gen.	<i>gross</i>	<i>gross</i>	<i>gross</i>	<i>gross</i>
Dat.	<i>gross</i>	<i>gross</i>	<i>gross</i>	<i>gross</i>
Acc.	<i>gross</i>	<i>gross</i>	<i>gross</i>	<i>gross</i>

3. Decline the same adjective preceded by the possessive pronoun *mein* in the

	MASC.	FEM.	NEUT.	PLUR.
Nom. <i>mein</i>	<i>gross</i>	<i>mein gross</i>	<i>mein gross</i>	<i>mein gross</i>
Gen. <i>mein</i>	<i>gross</i>	<i>mein gross</i>	<i>mein gross</i>	<i>mein gross</i>
Dat. <i>mein</i>	<i>gross</i>	<i>mein gross</i>	<i>mein gross</i>	<i>mein gross</i>
Acc. <i>mein</i>	<i>gross</i>	<i>mein gross</i>	<i>mein gross</i>	<i>mein gross</i>

4. Decline :—

	MASC.	FEM.	NEUT.	PLUR.
Nom. <i>guter</i>	<i>Wein</i>	<i>Suppe</i>	<i>Wasser</i>	<i>Leute</i>
Gen. <i>gut</i>	<i>Wein</i>	<i>Suppe</i>	<i>Wasser</i>	<i>Leute</i>
Dat. <i>gut</i>	<i>Wein</i>	<i>Suppe</i>	<i>Wasser</i>	<i>Leute</i>
Acc. <i>gut</i>	<i>Wein</i>	<i>Suppe</i>	<i>Wasser</i>	<i>Leute</i>

5. When may the adjective be undeclined, and when is it indeclinable? Illustrate each by two examples.

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6. Turn the following singular substantives into the plural by adding, where necessary, the letter or letters &c. which they require, and state some general rules which may serve as a guide in forming the plural of substantives:

Tisch	Glas	Spiegel
Hut	Bediente	Besen
Buch	Auge	Töchterlein
Nuss	Gabel	Hammer
Hand	Kammer	Gräfinn
Mädchen	Zunge	König

7. Give four substantives which are declined like the adjective in the Questions 2, 3, with an explanation why they differ so widely from the declension of other substantives.

8. What are the rules for the declension of substantives in the singular and plural?

9. Translate into German:—

Have you any more sugar?—I have no more. Has he any more good water?—He has no more. Have I any more good books?—You have not any more good books, but a few more sheets of paper. What has she more?—She has a few more golden pens. Will you give me another cup of tea?—I have only one more to give.—Thank you!

10. Give the comparative and superlative of the adjectives and adverbs

COMPARATIVE.	SUPERLATIVE.	COMP.	SUPERL.
bald,			
gut,		viel,	
gern,		lang,	
		hoch,	

11. Give three prepositions which govern the Dative ; three which govern the Accusative ; three which govern the Dative and Accusative ; and four which govern the Genitive.—

DATIVE.	ACCUSATIVE.	DATIVE AND ACCUSATIVE.	GENITIVE.

12. Translate into German :—

Is your father at home ?—He is gone out. At whose house is your brother ?—He is at the house of his uncle. Will you go out ?—I have no mind to go out, I wish to remain at home.

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13. When does the Infinitive, which is generally preceded by *zu*, not admit of this preposition ?

14. Give the first person singular of the present, imperfect, and perfect of the verbs

	PRESENT.	IMPERFECT.	PERFECT.
gehen			
versprechen			
mögen			
entlassen			
erliegen			
dürfen			
gestehen			
weisen			
zerschlagen			
kommen			

15. Translate into German :—

What book have you ?—I have a German book. What books has she ?—Very good ones. What paper has he ?—Writing-paper.

16. Give the infinitive of three separable compound verbs, and shew by conjugating them in what tenses they are separated. Having answered this question state the exceptions.—

INFINITIVE.	PRESENT.	IMPERFECT.	PAST PARTICIPLE.

17. Translate into German :—

Do you like to study? Do you like walking? Do you like wine? Do you like to learn by heart?—I like to read better than to learn by heart. Do you like to ride on horseback better than to ride in a carriage?—I like to ride better than to drive, but my father likes to ride in a carriage better than to ride on horseback. Does she like to write better than to read?—She likes neither. Are you loved?—We are loved and rewarded. By whom are you praised?—I am praised by my tutors, but my brother is blamed by them, because he is idle and disobedient.

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18. State the tenses of the German verb.

19. Translate into German :—

When I was a child. When I was in Berlin I studied when my friend played. When were you born ? I was born—

20. Give the signification of

der Band,

der Schild,

der See,

das Band,

das Schild,

die See,

21. Translate into German :—

I am going into the room. I am in the room. I am going to the window. I am standing at the window. I am going into the country. I am in the country.

22. Distinguish the signification of the following verbs when used

AS SEPARABLE.

AS INSEPARABLE

durchreisen,

übersetzen,

umgehen,

durchreisen,

übersetzen,

umgehen,

23. Translate into German :—

When will you send me Schiller's works?—I will send you them to-morrow. Will you send them to me in the country?—I will send them you there. Have you given the horses to your brother?—I have given him them. Do you intend to go to London soon?—I shall go thither to-morrow morning at half-past ten.

24. Give the rules which determine the order of the words in a German sentence.

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SECTION C.—*Mathematics.*

C. I. *Pure Mathematics.*

Algebra. (To quadratic equations inclusive.)

1. Find the value of

$$\frac{\sqrt{3xy} - \{(3x^2 - 2y^2)^{\frac{1}{2}} - (6x^2 - 5y^2)^{\frac{1}{2}}\}}{xy - \{(x^2 + y^2) - (x^2 - y^2)\}},$$

when $x = 3$, $y = 1$.

2. Multiply $1 - a + a^2 - a^3$ by $1 + 2a + a^2$, and divide $x^5 + 2x^4 - 4x^3 - 2x^2 + 11x - 4$ by $x^2 + 2x - 1$.

3. Resolve into their elementary factors

$$(1) \quad (a+x)^2 - (a-x)^2.$$

$$(2) \quad x^2 - x - 20.$$

$$(3) \quad 1 + 27a^3.$$

4. Simplify the following expressions :

$$(1) \quad ab \div \left(\frac{a^2}{b} \times \frac{b^2}{a} \right).$$

$$(2) \quad \frac{1}{x} + \frac{2}{x-1} - \frac{3}{x+2}.$$

$$(3) \quad \frac{\frac{ax}{x^2-y^2} + \frac{b}{x-y} - \frac{a}{x+y}}{\frac{ax}{a^2-b^2} + \frac{y}{a-b} - \frac{x}{a+b}}.$$

5. Find the Greatest Common Measure of

$$a^3 - 3a^2 + a + 1, \quad \text{and} \quad a^2 - 3a + 2,$$

and Least Common Multiple of

$$16a^2b(a-x), \quad 24b^2(a^2+ax), \quad \text{and} \quad 9ab(a^2-x^2).$$

6. Extract the square root of

$$1 - 4a + 10a^2 - 12a^3 + 9a^4.$$

7. Solve the equations

$$(1) \quad \frac{6x-1}{3} - \frac{1}{2} \left(x - \frac{1-x}{3} \right) = \frac{1}{6}.$$

$$(2) \quad \frac{1}{x-3} + \frac{3}{x-9} = \frac{4}{x-6}.$$

$$(3) \quad \left. \begin{array}{l} \frac{x}{5} - \frac{y}{3} = 3 \\ \frac{x}{7} - \frac{y}{6} = 3 \end{array} \right\}.$$

8. Solve the quadratic equations

$$(1) \quad x^2 - 8x = 33.$$

$$(2) \quad x^2 + x + \sqrt{3x^2 - 2x + 4} = \frac{5}{3}x + 12.$$

9. Extract the square root of $103 - 20\sqrt{21}$, and simplify

$$\frac{3\sqrt{2} - 2\sqrt{3}}{3\sqrt{2} + 2\sqrt{3}} + \frac{3\sqrt{2} + 2\sqrt{3}}{3\sqrt{2} - 2\sqrt{3}}.$$

10. Given three numbers a, b, c , such that $a + b + c = 0$; find the number by which if each be diminished, the sum of the fractions formed by dividing each number by its corresponding remainder may be equal to zero.

11. Find two fractions such that the greater of the two shall exceed the less by $\frac{1}{2035}$, and its denominator exceed that of the less fraction by 18; the numerators of the fractions being 3 and 2 respectively.

C. I. *Pure Mathematics.*

Euclid, I—IV.

[The questions in this paper are intended for those Candidates *only* who do not offer themselves for examination in higher Mathematics.]

1. Define a superficies, a plane superficies, a rectilineal angle, a circle, parallel lines, a segment of a circle, the angle in a segment. When do two circles touch one another?

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2. If two angles of a triangle be equal to each other, the sides also which subtend, or are opposite to, the equal angles, shall be equal to one another.

3. The angles which one straight line makes with another upon one side of it, are either two right angles, or are together equal to two right angles.

4. The opposite sides and angles of parallelograms are equal to one another, and the diameter bisects them, that is, divides them into two equal parts.

5. If a straight line be divided into any two parts, the square of the whole line is equal to the squares of the two parts, together with twice the rectangle contained by the parts.

6. Describe a square that shall be equal to a given rectilinear figure.

7. If one circle touch another internally in any point, the straight line which joins their centres being produced shall pass through that point of contact.

8. The angles in the same segment of a circle are equal to one another.

9. If a straight line touch a circle, and from the point of contact a straight line be drawn cutting the circle; the angles which this line makes with the line touching the circle, shall be equal to the angles which are in the alternate segments of the circle.

10. Describe an isosceles triangle, having each of the angles at the base double of the third angle.

11. Through the angular points of a square straight lines are drawn parallel to the diagonals. Shew that the resulting figure is a square, and that it is double of the given square.

12. If a parallelogram can be inscribed in a circle, it is a rectangle; if a circle can be inscribed in it, it is equilateral.

13. Draw a straight line touching each of two circles which lie each outside the other.

14. Two circles lie the one wholly within the other, the centre of the greater circle lying inside the less. Prove that of all chords of the greater circle which touch the less, the greatest and least are perpendicular to the line joining the centres of the two circles.

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C. I. *Pure Mathematics.*

[The questions in this paper are intended for those Candidates *only* who offer themselves for examination in Higher Mathematics.

No Candidate is expected to attempt to answer more than one half of the questions in this paper.

Every Candidate is required to answer three at least of the questions from Euclid.

Candidates are recommended to answer questions in as many of the subjects as they can.]

Euclid.

[Only one of each pair of questions in this subject should be answered.]

1. Upon the same base, and on the same side of it, there cannot be two triangles that have their sides which are terminated in one extremity of the base, equal to one another, and likewise those which are terminated in the other extremity.

Or,

In any right-angled triangle, the square which is described upon the side subtending the right angle is equal to the squares described upon the sides which contain the right angle.

2. If a straight line be divided into any two parts, the squares of the whole line, and of one of the parts, are equal to twice the rectangle contained by the whole and that part, together with the square of the other part.

Or,

In obtuse-angled triangles, if a perpendicular be drawn from either of the acute angles to the opposite side produced, the square of the side subtending the obtuse angle, is greater than the squares of the sides containing the obtuse angle, by twice the rectangle contained by the side upon which, when

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produced, the perpendicular falls, and the straight line intercepted without the triangle between the perpendicular and the obtuse angle.

3. The angle at the centre of a circle is double of the angle at the circumference upon the same base, that is, upon the same part of the circumference.

Or,

Inscribe a circle in a given triangle.

4. Triangles and parallelograms of the same altitude are one to the other as their bases.

Or,

Similar triangles are to one another in the duplicate ratio of their homologous sides.

5. If a straight line be at right angles to each of two straight lines cutting one another at the point of their intersection; then it shall be perpendicular to the plane which passes through them, or in which they are.

Or,

The plane angles which constitute any solid angle shall be together less than four right angles.

Algebra.

6. Prove the formula for the sum of n terms of a geometric series.

What is meant by the "sum of a geometric series continued to infinity?" In what case is it possible to assign this sum?

7. Prove the Binomial theorem for positive integral indices; and expand $\left(1 - \frac{x}{5}\right)^5$.

8. What are the least positive and integral numbers which satisfy the equation

$$409x - 77y = 1.$$

9. Resolve $\frac{1+x}{1-2x+2x^2-2x^3+x^4}$ into its partial fractions.

10. The number of permutations of $n-1$ things taken 4 together is 15 times the number of combinations of n things taken 3 together: find n .

11. Sum the series,

$$(1) \quad 5\frac{1}{2} + 4 + 2\frac{1}{2} + \dots \text{ to 8 terms.}$$

$$(2) \quad \sqrt{5} + 1 + \frac{1}{\sqrt{5}} + \dots \text{ to 5 terms.}$$

$$(3) \quad 1.9 + 9.17 + 17.25 + \dots \text{ to } n \text{ terms.}$$

$$(4) \quad \frac{1}{1.9} + \frac{1}{9.17} + \frac{1}{17.25} + \dots \text{ to infinity.}$$

12. Give a mathematical definition of Probability: and from your definition prove that if p, p' be the probabilities of two independent events, pp' is the probability of their both happening.

Trigonometry.

13. Define the Tangent of an Angle, and trace its variation in sign and magnitude through the four quadrants.

14. Prove that $\cos(A+B) = \cos A \cos B - \sin A \sin B$, constructing the figure for the case in which

$$A > 90^\circ, \quad A+B < 180^\circ.$$

15. Prove the formulæ

$$(1) \quad \sin A + \sin B = 2 \sin \frac{A+B}{2} \cos \frac{A-B}{2}.$$

$$(2) \quad \tan(A+B) = \frac{\tan A + \tan B}{1 - \tan A \tan B}.$$

$$(3) \quad \frac{1}{2} \sin^{-1} \frac{4}{5} + \tan^{-1} \frac{1}{3} = 45^\circ.$$

$$(4) \quad \frac{\tan(45^\circ + A)}{\tan(45^\circ - A)} = \frac{2 \cos A - \sin A + \sin 3A}{2 \cos A - \sin A - \sin 3A}.$$

16. Shew that in any plane triangle

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c},$$

$$\cot \frac{1}{2} A = \frac{b+c}{b-c} \tan \frac{1}{2} (B-C).$$

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17. Prove that

$$\cos \theta = 1 - \frac{\theta^2}{1.2} + \frac{\theta^4}{1.2.3.4} - \dots$$

and shew that the demonstration of this theorem supposes θ to be the circular measure of the angle it represents.

18. Calculate the value of π to four places of decimals, by means of any one of the series which may be used for that purpose.

19. In any spherical triangle

$$\frac{\sin A}{\sin a} = \frac{\sin B}{\sin b} = \frac{\sin C}{\sin c},$$

and in any right angled spherical triangle having a right angle at C ,

$$\cos c = \cos a \cos b.$$

Deduce from these formulæ the corresponding theorems of Plane Trigonometry.

20. "The area of a spherical triangle is equal to its spherical excess." Prove this theorem, and explain what superficial unit and what angular unit are supposed in its enunciation.

21. Define a logarithm; and prove that $\log_b a \cdot \log_a b = 1$. Write down the logarithms of 1000, .01, .0001 with respect to each of the bases 100 and .001.

22. From the series

$$\log_e (1+x) = x - \frac{x^2}{2} + \frac{x^3}{3} - \dots$$

deduce a more quickly converging series for the computation of logarithms.

* 23. In a plane triangle given

$$A = 40, 20', \quad C = 99^\circ, 10', \quad b = 26.4135, \quad \text{find } a.$$

* 24. State Napier's rules for the solution of a spherical triangle, and given $C = 90$, $B = 49^\circ, 30'$, $L \sin A = 9.9983887$, find b , $L \sin a$ and $L \sin c$.

* See the Paper of Logarithms at p. 50, 51.

C. 1. *Pure Mathematics.**Higher Mathematical Paper.*

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[No Candidate is expected to attempt to answer more than one half of the questions in this paper.

Candidates are recommended to answer questions in as many subjects as they can.]

Pure Geometry.

1. O , A , and B are three points in a straight line: give a geometric construction for the arithmetic, the geometric, and the harmonic mean between OA and OB ; and determine which of the three is the greatest, and which the least.

2. AB is a straight line given in position; C, D are two points on the same side of it. It is required to find a point X in AB such that the angle CXD shall be equal to a given rectilineal angle E . Assign also the greatest value of the angle E for which the problem is possible.

3. Find the locus of a point, the distances of which from two fixed points are in a constant ratio to one another.

4. An ellipse being given completely traced upon a sheet of paper; shew how you would find its centre and its principal axes. Shew also how you would draw a tangent to it, from a given point upon it, and also from a given point outside of it.

5. Prove geometrically the following properties of the conic sections:

(1) In the parabola, the subnormal is half the latus rectum.

(2) In the hyperbola, the tangent bisects the angle between the focal radii vectores.

(3) The vertex of a right angle moves on a given circle; and one side passes continually through a given point inside the circle; prove that the other side always touches an ellipse.

6. How must you cut a right cone by a plane so as to get a parabola? Give also a construction for the latus rectum of the parabola.

7. Given any five points in a plane, shew how you can describe by points the conic section which passes through them.

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Analytical Geometry.

8. The axes being rectangular, construct the straight lines

$$2x - 3y = 1, \quad \frac{x}{2} + \frac{y}{3} = 1.$$

Find also the coordinates of their point of intersection, and determine the angle at which they intersect.

9. Find the length of the perpendicular from the point $x' y'$, upon the straight line $Ax + By + C = 0$.

10. If the straight line $Ax + By + C = 0$ touch the circle $x^2 + y^2 = r^2$, shew that $A^2 + B^2 = \frac{C^2}{r^2}$.

11. Find the coordinates of that point upon the ellipse $\frac{x^2}{9} + \frac{y^2}{4} = 1$, which is such that its tangent makes equal angles with the coordinate axes.

12. Discuss fully the curves represented by the equations

$$(1) \quad x^2 + y^2 + 6x - 4y - 12 = 0,$$

$$(2) \quad 4x^2 + 10xy + 4y^2 = 1,$$

the axes of coordinates being rectangular; and draw a figure representing the positions and dimensions of each curve separately.

13. In any conic section the middle points of parallel chords lie on a straight line. Prove this theorem for the parabola.

14. In the hyperbola one of any two conjugate diameters bisects the line intercepted by the asymptotes on a parallel to the other.

Differential and Integral Calculus.

15. Differentiate from first principles,

$$u = x^3, \quad u = \sin x, \quad \text{and} \quad u = \log_e x.$$

16. Differentiate

$$\frac{x}{\sqrt{(a^2 - x^2)}}, \quad \log(x + \sqrt{a^2 + x^2}), \quad \text{and} \quad \tan^{-1} \left(\frac{1 - x}{1 + x} \right).$$

17. Expand $\tan^{-1} x$ in a series proceeding by powers of x .

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18. If $\frac{du}{dx} = (x-1)^3(x-2)^2(x-3)$; investigate the values

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of x that render u a maximum or minimum, distinguishing between the two cases.

19. Prove the following differential formulæ which occur in the theory of plane curves:

$$(1) \quad \text{Subtangent} = y \frac{dx}{dy}.$$

$$(2) \quad \text{Subnormal} = y \frac{dy}{dx}.$$

$$(3) \quad \frac{ds^2}{dx^2} = 1 + \frac{dy^2}{dx^2}.$$

20. Define the radius of curvature at any point of a plane curve, and investigate a differential expression for it.

21. Trace the curves

$$(1) \quad y = \frac{x^2 + a^2}{x^2 - a^2}.$$

$$(2) \quad r^2 = a^2 \cos 2\theta.$$

22. Find the integrals

$$\int \frac{x \, dx}{x^2 + 2x + 3}, \quad \int x \log x \, dx;$$

and give the value of

$$\int_1^2 x \log x \, dx.$$

23. Find the area of the curve $ay^2 = x^3$, included between the origin and the double ordinate through the point $x = a$.

23. Find the solid content of a sphere by the method of Limits, or by the Integral Calculus.

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C. 2. *Practical Mechanics (including Mechanism) and Hydrostatics mathematically treated, Surveying, and Navigation.*

[Candidates are not expected to attempt more than twelve questions in this Paper.

N.B. Candidates are recommended to illustrate their answers by diagrams or drawings, when the nature of the question admits of it.]

Practical Mechanics treated Mathematically.

1. What is the *resultant* of two or more forces? If the directions of two forces do not meet, can they have a resultant?

2. P , Q , R , are three forces which keep a point O in equilibrium. Assuming the parallelogram of forces, explain and prove the following equations:

$$\frac{\sin QOR}{P} = \frac{\sin ROP}{Q} = \frac{\sin POQ}{R}.$$

3. Find the centre of Gravity of a pyramid on a triangular base.

4. Explain the graduation of the common Steelyard.

5. A wheel turns freely about a fixed axis, and also slides freely along it. If two forces act upon the wheel, at any points and in any directions, what are the conditions of equilibrium?

6. What force must a man exert in order to draw himself up in a basket by a cord attached to the basket, and passing over a pulley fixed above it?

7. A sledge is drawn on the ice by a cord pulling horizontally. If the sledge weigh 300lbs, and the coefficient of friction be 0.01, what is the tension of the cord when the velocity is constant? (Neglect resistance of air.)

8. Explain and prove the equation $v^2 = 2gh$.

9. The depth of a well is 40 feet, and the area of its horizontal section 10 square feet. If the well be half full, and the weight of a cubic foot of water be 62.5lbs, how long will it take an engine of one horse power to pump it dry?

10. Illustrate by a diagram the path of a point on the circumference of a carriage wheel. What is the curve called, and what is its most important mechanical property?

11. Why is the pendulum of a clock allowed to vibrate only through a small arc, and the balance-wheel of a watch through a large one?

12. If the radius of gyration of a fly-wheel be 7 feet, and its weight 1000lbs., how many units of work must be done upon it to give it a velocity of 60 revolutions per minute?

13. Distinguish between the "power" of a steam-engine, and the "power" of a combination of pulleys.

14. Distinguish between the terms "pressure" and "impact." How is the force of a blow expressed numerically?

15. A weight of 1lb. is attached to the end of a string 3 feet long, which is held by the other end and whirled completely round in a vertical plane at the rate of two revolutions in a second. What is the tension of the string when the weight is at the highest point?

*Mechanism and Mechanical Drawing.**

16. Explain the construction and action of the D valve in a steam engine.

17. Explain any form of "parallel motion" of which the principle is mathematically correct.

18. By what mechanism is the pressure of the atmosphere employed as an equalizing power instead of a fly-wheel? Which produces the most equable motion, and why?

19. Draw a ratchet wheel and detent.

20. What is meant when it is said that one toothed-wheel works correctly with another?

21. Explain and illustrate by a drawing the form given to the teeth of wheels when it is required that any two of a set which have the same pitch shall work correctly together.

22. In what respect does the image of a screw seen in a mirror differ from the screw itself?

23. What is an endless screw? When an endless screw is employed instead of a pinion, how many leaves must it be reckoned to have?

* See the Notice issued to Candidates in Drawing, p. 60.

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24. A rod is moved backwards and forwards in the direction of its length. It is required to make both the backward and forward motion cause a wheel to turn through a small angle, always in the same direction.

25. When two revolving shafts are not parallel, how may one be made to communicate motion to the other (1) when their directions meet, (2) when they do not meet?

26. AP , BQ , are two rods in the same plane turning on fixed centres A , B , and connected by a link PQ . Prove that their angular velocities are inversely as the segments into which the link divides AB .

27. How is the compensation for temperature effected, (1) in a chronometer (2) in an astronomical clock?

28. Explain *one* of the following kinds of escapement. Common anchor escapement. Dead beat escapement. Gravity escapement. State the advantage or disadvantage of that which you describe.

29. Explain the construction and action of one (not both) of the following machines: *a*. The Hydraulic Ram. *b*. The Fire Engine.

30. Draw and explain a section of an overshot water-wheel.

Hydrostatics treated mathematically.

31. If the specific gravity of mercury be 14, to what height can water be raised by a common pump when the Barometer stands at 28 inches?

32. Does the force necessary to work a common pump vary with the height of the barometer? Prove your answer.

33. Prove that the centre of gravity of a floating body is in the same vertical line with that of the displaced fluid.

34. Find the Centre of Pressure of a rectangular board of which one edge coincides with the surface of the fluid.

35. What is Marriotte's law? and how can its truth be tried experimentally?

36. Explain the action of a siphon.

37. Shew on general principles that the velocity of a liquid issuing from a small orifice in an open vessel cannot be greater than that due to the vertical height of the surface above the orifice.

Navigation, &c.

38. What is the length, in nautical miles, of a degree of longitude in latitude 60° ?

39. The apparent meridian altitude of the Moon's lower limb is observed to be $54^\circ 36' 40''$. What is the latitude of the place, supposing the Moon's Declination $28^\circ 15' N$, Refraction $40''$, Parallax $27'$, Semidiameter $15'$, Dip of Horizon $3'$?

40. At what o'clock to-day is the sun on the Meridian, supposing the Equation of Time $2^m 13^s$, to be added to apparent time?

41. A traveller sets out from the Equator, and travels *N.E.* until his chronometer has lost an hour compared with local time. What is his latitude? Given, from a table,

LAT.	MER. PTS.
$14^\circ 30'$	879.4
$15^\circ 0'$	910.5

42. If a ship's true course be *S.S. $W \frac{1}{2} W$* , and the variation $2\frac{1}{4}$ points *W*, what is the compass course?

43. If the distance be 100 nautical miles, and the departure 80, what is the difference of latitude?

44. Having given a Mercator's Chart, and the usual drawing instruments, how would you find as accurately as possible the distance between two places on the Chart?

45. Explain the term *Meridional Parts*. Account for the numerical coefficient in the formula

$$7915.7 \times \log \tan (45^\circ + \frac{1}{2} \text{ lat.})$$

46. Explain the method of finding the time by equal altitudes.

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47. Explain the principle of the quadrant, or sextant. How is the instrument used for taking altitudes (1) at sea, (2) on land.

Surveying, &c.

48. What is the line of collimation of a telescope, and how is the telescope of a level or theodolite adjusted for collimation?

49. A field is bounded by four straight lines, of which two are parallel. If the sum of the parallel sides be 625 links, and their perpendicular distance 160, what is the content?

50. What is the construction and use of the Station Pointer? Is the position of a station *D* always completely determined when the relative bearings of three known stations *A*, *B*, *C* are taken from it?

51. Give directions for surveying with the chain a four-sided field, when neither of its diagonals can be conveniently measured.

52. How may the difference of longitude of two stations be ascertained when each is visible from the other?

53. In using a level, what are the two adjustments of the telescope for distinct vision? Explain clearly why they are important.

54. How may the height of an inaccessible mountain be ascertained?

55. Explain the mode of surveying a large lake with the theodolite.

56. How is the content of land on hilly ground reckoned and measured? What is the ratio between an area on an inclined plane, and its horizontal projection?

57. Describe the usual method of levelling. What are the corrections for curvature and refraction, and how far are they practically necessary?

SECTION D.—*Physics.*III.
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D.
PHYSICS.D. I. *Natural Philosophy.*

[Candidates are recommended not to attempt many of the questions in the following Paper, but to select a few which they may be able to answer correctly.]

The answers are to be illustrated by drawings so far as may be necessary to make them fully intelligible.]

1. What is the object of the barometer, and for what purposes is it employed? Describe the construction of the several kinds of barometer in use. Mention the defects and inconveniences to which each is liable, and the best remedies for these. How does the variation of the barometer affect the investigation of the specific gravity of bodies, and what is usually taken as the standard of pressure in the estimation of this? How are specific gravities of gases which have been found at any other pressure to be reduced to the established standard? Why will not the same rule apply to other bodies?

2. In the same manner describe fully the various kinds of thermometer, (including the contrivances for making it self-registering,) with their defects, and the remedies for these defects. What scales of notation are in use, and what are the rules for commuting the degrees of one scale into those of another?

3. What is said to be the velocity of light? How was it first deduced by Römer, and subsequently confirmed by Bradley? Explain fully their observations, and the deductions from these observations. How far would they shew the similarity of the nature of light when derived from different sources? Do you know in what countries and at what date Römer and Bradley lived? Do all kinds of sounds travel with equal velocities? Prove your answer, and mention any facts you know as to the velocity with which they traverse different media. How did Wheatstone try to deduce the velocity of electricity? How much did his experiment really prove? What circumstances practically affect the velocity of electricity, and at what

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rate is it found to travel in practice? Does its velocity depend upon the intensity of the battery from which it is produced? Compare the laws which seem to regulate the velocities of light, sound, and electricity.

4. What is the law of gravitation? What other forces are governed by the same law? Is this law simply deduced from observation and experiment, or is it necessary 'a priori' from mathematical considerations? When it is said that gravity varies directly as the mass, can this properly be called a law? Illustrate your answer by defining the word 'mass.' In what direction does the force of gravitation act? Are there any forces in nature which act in a different direction? Describe the mode of their action. Describe also the phenomena of diamagnetism, and explain in what manner and in what direction the forces of diamagnetism must be supposed to act.

5. In charging a Leyden Battery by means of an ordinary electrical machine, explain fully the whole process which goes on, beginning with the rubber and ending with the jar, and dwelling particularly on the action of induction throughout. What is the cause of the high intensity of the electricity of a thunderstorm, and how may this high degree of intensity be imitated artificially?

6. What are the necessary elements for making a Voltaic Circuit? What are the most ordinary forms of a Voltaic battery, the defects incidental to each, and the best remedies for these defects? What means are there of experimentally ascertaining the existence and estimating the force of a Voltaic Circuit? What is Ohm's formula? How would its indications be modified in practice? What means are there of obtaining from a Voltaic battery electricity approaching in its intensity to that of electricity obtained by friction? Give as full a description as you can of the whole process which takes place in doing so, and illustrate by it the chief laws of electro-magnetism.

7. Define motion. Explain why all motion is said to be relative. What is necessary in order to constitute the idea of absolute motion? Describe Atwood's machine for investigating

the effect of accelerating forces, and state concisely the laws which are deduced from experiments made with this machine.

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8. Give an account of the principal phænomena of Diathermancy. How is Electro-magnetism made use of for ascertaining minute differences of radiating heat? Describe the instruments necessary for this purpose.

9. Describe all the mechanical means with which you are acquainted for gaining power of pressure at the expense of speed, or vice versâ. Why is the mechanical contrivance of the Stanhope Press especially suited for the operation of printing?

10. Describe an achromatic refracting Telescope, and explain as fully as you are able (1) how it enables us to see clearly distant objects, and (2) why it is achromatic.

11. Describe the phænomena of what is called latent heat as fully as you can; and contrast the present state of things in nature with what would take place but for the principles of latent heat.

12. What is the distinction between the momentum of a body and its 'vis viva?' Supposing an anvil or large stone to be placed on a man's chest, explain fully all the reasons why a blow with a hammer on the stone or anvil will do him no injury.

13. What is the rule for estimating the pressure of a fluid on the side of a vessel or banks of a river containing it? Explain what is called the hydrostatic paradox, and give an account of the practical uses to which the principle involved in it has been put.

14. What is the rule for finding the velocity of a stream forced by a given pressure through a small orifice? What is the best form of orifice for facilitating the passage of liquids, and why? With what velocity does air rush into a vacuum?

15. Describe the principal phænomena of polarized Light.

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D. 2.—*Chemistry.*

1. What is steam? Is steam combustible or incombustible, ponderable or imponderable, visible or invisible, an element or a compound? Give reasons for your opinion.

2. Under what circumstances is Ammonia formed? What are its properties? How may it be decomposed? What are the relative densities of Ammonia and its constituent gases, the density of Hydrogen being 1?

3. What chemical changes would take place on mixing solution of Chloride of Barium, Hydrate of Soda, and Sulphate of Ammonia, and boiling the mixture? and how would you recognise the substances formed?

4. What are the analogies of Chlorine, Iodine, and Bromine?

5. In what Chemical manufacture is Peroxide of Manganese employed? How is its commercial value determined?

6. By what experiment did Lavoisier ascertain the constitution of the atmosphere?

7. What properties are characteristic of the following substances?—Sesquichloride of Iron, Oxide of Zinc, Protochloride of Copper, Lime, Oxide of Silver, Metallic Platinum, Silver, Potassium, Oxalic Acid, Hypochlorous Acid, Perchlorate of Potash, Aldehyde. Express the Chemical constitution in formulæ.

8. Give illustrations of the processes of oxydation and reduction, and examples of the Chemical agents by which they may be effected.

9. How would you ascertain the nature and the quantities of the acids present in a mixture of Sulphuric, Hydrochloric and Phosphoric Acids?

10. Calculate the formula of the substance which has the following per-centage composition :

Carbon	54 . 54
Hydrogen	9 . 09
Oxygen	36 . 37
	<hr/>
	100 . 00

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the atomic weight of Hydrogen being 1, of Carbon 6, and of Oxygen 8.

11. What are the products of the combustion of Alcohol and of Cyanogen ?

12. What is meant by the term "substitution?" Give examples of this mode of Chemical action.

13. How are Formic and Acetic Acids prepared? What is their Chemical constitution, and what bodies can be formed by their decomposition?

D. 2.—*Chemistry.*

(* *Practical Examination.*)

I.

State the Acid and Base present in this substance, which contains a single acid and a single base.

II.

Ascertain the nature of the precipitate produced by Hydrochloric Acid in this solution.

III.

This substance contains no other bases than Lime, Baryta, and Magnesia. State which of these are present and which absent, and with what acids they are combined.

IV.

Examine this solution for Iron, Lead, Copper, Zinc, and Alumina.

* See the Notice issued to Candidates in Chemistry, p. 54.

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V.

Heat this substance in a tube, and give an opinion as to its nature. Confirm or refute this opinion by any tests which occur to you.

VI.

Which of these papers contains Arsenic?

D. 3. *Vegetable and Animal Physiology.*

1. What parts of their respective plants are the substances used under the name of carrots, cauliflowers, onions, Jerusalem artichokes, nutmeg, mace, cloves, hops, quassia, saffron, Cayenne pepper, olive oil, flax, turpentine, cork?

2. Describe the leaves in specimens 1 and 2.

3. In specimens 3 and 4 dissect and draw separately a calyx, a pistil, and the imperfect fruit, all somewhat larger than life. Describe the mode of insertion of the stamens, and the inflorescence in each.

4. How do the constituents of grapes differ in the northern and southern part of the temperate zone? and how does this affect the wine made from them?

5. Why ought cuttings and newly transplanted seedlings to be partially covered up and shaded?

6. Describe the growth of the trunk of an exogenous tree.

7. What is a graft, and how does it grow?

8. What is sap? Through what part of an exogenous plant does it rise? What becomes of it, and how is it renewed?

9. In animals what supplies the place of sap in vegetables? By what means is it conveyed over the body? What becomes of it, and how is it renewed?

10. How is the head of an ox supported while walking, and how that of a man?

11. Describe the phænomena of hibernation, and name some British mammalia which habitually enter into that state.

12. Fill up in outline the shape of the heart, the lungs, and the stomach in the accompanying diagram.

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13. Name also a bone indicated in the accompanying diagram which is wanting in the horse: state what British mammalia possess it, and what its absence proves as to the mode of feeding.

14. Describe the articulating surfaces in the specimen bone of a quadruped, illustrating your description by drawings of its various aspects.

15. What constituents in the secretion from the kidneys make it valuable as manure? What in bile renders it useful for cleaning greasy carpets? What is the latter called in commerce?

16. If you shut your mouth when you fall into the water, why are you more likely to float than if you kept it open?

[The specimens &c. referred to were—

1. Sprig of bamboo dried.
2. Sprig of willow dried.
3. Fresh buttercup plant.
4. Fresh strawberry plant.
5. Outline diagram of human skeleton.
6. Dorsal vertebra of a horse.]

* SECTION E.—*Drawing and Architecture.*

E. I. (First Paper.) *Drawing from the Flat and from Models.*

[Five Hours allowed.]

[In order to satisfy the Examiners in this section, Candidates will be required to perform the first and the second, and either the third or the fourth of these exercises in Freehand drawing.]

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1. Copy in blacklead pencil the accompanying outline about one fourth larger than the original.

* See the Notice issued to Candidates in Drawing, p. 60.

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2. Make *an outline*, and also a *shadowed drawing* in pencil or in black chalk upon white paper of the accompanying cast of the human Ear.

3. Make with the brush and Indian ink or Sepia a drawing of the accompanying shell of the size of the original.

N. B. The light and shade of the form, as well as the variations of tint on the surface of the shell are to be rendered in this drawing. The outline may be drawn with blacklead pencil or in any other way preferred by the Candidate, but the effect is to be given with the brush.

4. Sketch a rose from nature in water-colours.

E. I. (Second Paper.) *Drawing from Memory.*

[One Hour allowed.]

Draw from memory in pencil or with the brush in Indian ink or in colours, any one or more of the following objects :

- a box with the lid raised ;
- a bason and ewer ;
- a table ;
- a garden roller ;
- a boat ;
- the stem of a tree ;
- a cottage ;
- a flower ;
- a horse ;
- an ox ;
- a dog ;
- a cart.

E. I. (Third Paper.) *Drawing in Perspective.*

1. What are the conditions of Perspective commonly called parallel and oblique Perspective ?

2. Is there any difference of principle between these two methods of drawing an object in Perspective ?

N. B. The Candidate is only expected to work out one of the two next problems (3 and 4). The subsequent problems can be worked upon either solution.

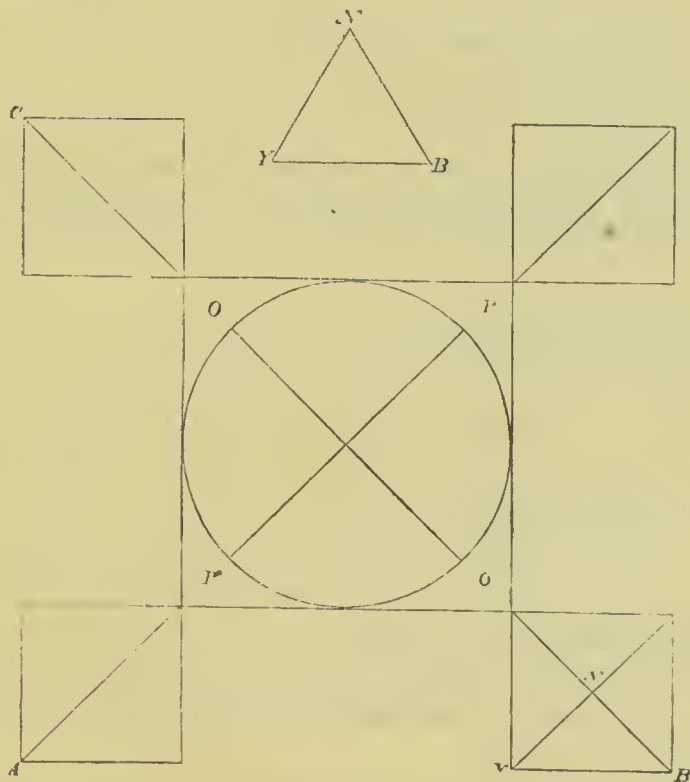
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3. Put in Perspective upon the ground plane the accompanying figure, the side AB to be parallel to the plane of the picture and 3 ft. within it, the angle A to be 4 ft. to the right of the centre or line of Direction.

4. Put the same figure in Perspective upon the ground plane. The side AC forming an angle of 60° with the picture plane, the angle A to be under the centre, that is to say, in the line of direction, and to touch the plane of the Picture.

5. Raise upon the square BXY the pyramid BNY whose base is square and equals the square BXY .

6. Shew the method of finding the vanishing point of the line formed by the intersection of two sides BNX and BNY of the pyramid.



[The angle of 60 and a scale were given.]

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E. 1. (Fourth Paper.) *Drawing of Plans, Sections, and Elevations.*

[The Candidate is at liberty to choose either of these Exercises.]

1. From the accompanying diagram* *A* draw to twice the scale a temple with the proportions and details of the Roman Doric order. The interior is to be vaulted and lighted from above. The walls may be decorated with styles or pilasters and niches.

2. From the accompanying diagram *B* draw to twice the scale the plan elevation and section of a chapel in the style of the thirteenth century. The timbers of the roof to be shewn.

E. 2.—*Design in pen-and-ink, and in colour.*

[In any of the designs the Candidate may introduce the human figure, or figures of animals, if he is able to do so.

In each case the Candidate is expected to consider the materials in which the designs are to be executed, and the use to which they are to be put ; and he is at liberty to explain in writing his reasons for the forms he may adopt.]

Sketch designs in pen and ink, or in colours, for any of the following articles :

1. For an ornamental border, composed of *ivy*, *briony*, or such like leaves, to surround the titlepage or cover of a book : to be engraved on wood.

2. For a book-case in three compartments, the ornaments of which are to be carved in wood.

3. For the handle and blade of a bread knife. The handle to be carved in wood.

* The Diagram included a slight *skeleton* ground plane and elevation.

4. For the embroidery of a cushion or table-cover.
5. For a porcelain flower vase.
6. For a hearth rug :—the border to be of a geometrical pattern, and the centre composed of the forms of leaves and flowers.
7. For a paper hanging, in three colours.
8. For an iron gate or railing, to be executed in wrought iron.
9. For a candelabrum to be executed in metal.
10. For a glass water-jug and goblet.

E. 3.—*History and Principles of the Arts of Design.*

[Candidates are not expected to attempt all the Questions in this Paper.]

1. At what epoch in the history of Athens are the Arts of Design considered to have reached their highest state of cultivation?
2. What existing objects preserved in Museums or elsewhere enable us to become acquainted with the skill of ancient nations in the Arts?
3. Mention the names of any ancient authors whose writings furnish us with information respecting Greek and Roman Art.
4. To what accident are we indebted for our knowledge of the great taste displayed by the Greeks and Romans, particularly by the latter, in articles of domestic use?
5. Did the ancient Greek Architecture differ from the Roman? If so, state in what particular respects it did so.

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6. Describe the difference in respect to the principle of construction between Greek Architecture and the Pointed Architecture of the middle ages.

7. Explain the difference between a *basso rilievo* and an *alto rilievo*.

8. What position in the Parthenon was occupied by the Sculptured Frieze now preserved among the *Elgin Marbles* in the British Museum?

9. To what purpose was ancient Greek Sculpture chiefly applied?

10. Mention the names of the two most celebrated Sculptors of the age of Pericles; and instance any of their known works; name any contemporary Painters.

11. In what situation were the earliest examples of Christian Art discovered? What are its principal subjects and peculiarities?

12. What modern nations, during the period lying between the 13th and 16th centuries, inclusive, have most successfully cultivated the Arts of Design?

13. Name any celebrated Painters, Sculptors, or Architects, who lived within the period named in question 12; and instance any of their principal works.

14. Mention the names of any early Italian Painters or Sculptors who were also Architects.

15. Who was the Architect of the Campanile or Bell-Tower of the Cathedral of Florence?

16. Who is the reputed inventor of Oil-Painting; to what School of Painting did he belong? Give the supposed date of the invention.

17. Mention any influence on the character of works of Painting produced by the introduction of the process of Oil-Painting.

18. Have the laws of Perspective any effect on colours, or do they apply only to lines and forms?

19. Exemplify by some instance the effect of reflected light on shadows. Explain the meaning of the terms "local colour," "middle tint," or "half tint," and "high light."

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20. Explain what is meant by "warm" or "cold colour."

21. Mention any fact in Physical Science bearing on the distinction made by artists between "warm" and "cold" colours.

22. Which colour is the most luminous? and which of the colours, as they are exhibited by the *prism*, can be seen at the greatest distance?

Write a short Essay in answer to the following questions, or either of them:

23. Supposing it to be one purpose of Painting and Sculpture to produce successful imitations of external objects, to what higher ends ought this imitation to be subordinate? And what conclusions would you draw from your answer, as to the artist's choice of a subject, and his manner of treating it?

24. State any remarkable difference between Poetry and Painting, or between Painting and Sculpture, with respect to the choice of subjects.

SECTION F.—*Music*.

1. Define *Music*.

2. Define *Harmony*.

3. Distinguish between *Harmony* and *Melody*.

4. What is a *tritone*? Between which notes of the scale does it occur?

5. What is the *leading note*? State its characteristics and uses?

6. What do you mean by the *preparation* and *resolution* of a discord?

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7. What are the inversions of the major triad, or common chord?

8. What are the inversions of the chord of the *fundamental*, *dominant*, or *flat seventh*? Write them down; figure them; and state which of the notes in each require preparation and resolution, tracing the connexion between them.

9. What do you mean by the *root* or *fundamental bass*?

10. Figure these chords; find their *roots*, and analyse them:



11. Harmonize the following in four parts:—



12. How many clefs are used now? What are they? State all you know about them. For what purposes are they employed? Why is it incorrect to write tenor parts in the G clef?

13. State all you know concerning the time signatures.

DIRECTIONS TO CANDIDATES.

- I. Look carefully at the Time Table, in which the hours are fixed for the subjects of Examination on each day, and always be at your seat in the Examination Room five minutes before the time.
- II. When the questions are given you, read them over carefully, and mark those which you think you can answer best; and do them first. If, after that, you still have time to spare, try some of the others.
- III. Before you begin to write your answers, insert in the blank spaces at the top of your Paper,
 1. The Number by which you are known in the Examination,
 2. The Subject in which the questions are set which you are about to answer.
- IV. In writing your answers
 1. Write only on the ruled side of the Paper.
 2. Put in the margin the number of the question before each answer.
 3. Leave a line blank after each answer.
 4. Number your pages as you go on.
- V. If you want anything in the course of the Examination, do not leave your seat; but call out your Number, and some one will attend to you.
- VI. As soon as notice is given, (which will be five minutes before the end of the time,) finish your Papers, see that they are numbered rightly and in their proper order, and leave them UNFOLDED at your seat.

Caution.

Candidates are strictly forbidden to communicate in any way with each other while under Examination.

Any Candidate detected in taking unfair advantages, such as getting others to help him in answering his questions, or bringing to the Examination Room any Book or Written Paper for such a purpose, will be turned out with disgrace.

Any Candidate detected in helping another will be subject to the same penalty.

JUNIOR CANDIDATES.

<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>	<i>Saturday.</i>
2 to 5 P. M. I. 1. (<i>At the Examiner's convenience.</i>) 2. (<i>See Wednesday, 6 p. m.</i>) 3. Analysis and Parsing. 4. (<i>See Wednesday, 6 p. m.</i>) 5. Arithmetic (elementary). 6. } (<i>See Wednesday,</i> 7. } 2 to 5 p. m.)	9 A. M. to 12. III. 1. Latin. (<i>See Friday, 2 p. m.</i>)	9 A. M. to 12. III. 5. (<i>Continued.</i>) Euclid I. II. III. IV. VI. Quadratic Equations. Progressions. Proportion. (<i>See Saturday, 8.30 a. m.</i>)	9 A. M. to 12. III. 2. Greek. (<i>See Friday, 2 p. m.</i>)	9 A. M. to 12. III. 7. * Chemistry. 8. Botany & Zoology. * The practical examination in Chemistry will be held in the Evening, at 6 P. M., or on Saturday.	8.30 to 11.30 A. M. III. 5. (<i>Continued.</i>) Plane Trigonometry. Use of Logarithms. Mensuration. Practical Geometry.
	2 to 5 P. M. III. 5. Arithmetic. Algebra (to simple equations inclusive). (<i>Continued on Wednesday, at 9 a. m.</i>)	2 to 5 P. M. I. 6. Geography. 7. English History.	2 to 5 P. M. III. 6. Mechanics and Mechanism. (Mechanical Drawing.)	2 to 5 P. M. III. 1. 2. Latin and Greek. (<i>A more advanced Paper.</i>)	
6 to 8.30 P. M. III. 3. French.	6 to 8.30 P. M. II. 1. 2. Rudiments of Faith and Religion.	6 to 8.30 P. M. I. 2. Writing from Dictation. 4. English Composition.	6 to 8.30 P. M. III. 4. German.	6 to 8.30 P. M. IV. 2. Music.	

SECTION IV. 1.—Candidates will be allowed for Drawing (not exceeding) 6 hours when they are not otherwise engaged.
N. B. No drawing can be removed from the examination room after it has been begun.

SENIOR CANDIDATES.

<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>	<i>Saturday.</i>
2. to 5 P. M. I. 1. Analysis & Parsing, &c. 2. (See <i>Wednesday</i> , 6 p. m.) 3. (See <i>Tuesday</i> , 2 p. m.) 4. Geography. 5. English History.	9 A. M. to 12. B. 1. Latin. (See <i>Saturday</i> , 3.30 a. m.)	9 A. M. to 12. C. 1. (<i>Continued.</i>) Euclid. Trigonometry. (See <i>Saturday</i> , 3.30 p. m.)	9 A. M. to 12. B. 2. Greek. (See <i>Saturday</i> , 8.30 a. m.)	9 A. M. to 12. C. 2. Practical Mechanics (including Mechanism). Hydrostatics. Surveying. Navigation.	8.30 to 11.30. A. M. B. 1. 2. Latin and Greek; with Composition. (<i>A more advanced Paper.</i>)
	2 to 5 P. M. I. 3. Arithmetic. C. 1. Algebra (to Quadratics inclusive.) (Continued on <i>Wednesday</i> , at 9 a. m.)	2 to 5 P. M. A. 1. English History. 3. Law and Political Economy. 4. Geography. (See <i>Saturday</i> , 12 noon.)	2 to 5 P. M. D. 1. Natural Philosophy. (Mechanical Drawing.)	2 to 5 P. M. D. 2. * Chemistry. * The practical examina- tion will be held in the Evening, at 6 P. M., or on Saturday.	12 NOON to 2.30 P. M. A. 1-4. English. (<i>A more advanced Paper.</i>)
6 to 8.30 P. M. B. 3. French.	6 to 8.30 P. M. II. 1. 2. 3. Rudiments of Faith and Religion.	6 to 8.30 P. M. I. 2. Short English Com- position. A. 2. Shakspeare & Bacon. (See <i>Saturday</i> , 12 noon.)	6 to 8.30 P. M. B. 4. German.	6 to 8.30 P. M. F. 1. 2. Music. D. 3. Physiology. (Botanical and Anato- mical Drawing.)	3.30 to 6.30 P. M. C. 1. Pure Mathematics. (<i>A more advanced Paper.</i>)

SECTION E.—Candidates will be allowed for Drawing (not exceeding) 6 hours when they are not otherwise engaged: and a paper of questions will be given at such time as the Examiner at each place shall find to be convenient.

N. B. No drawing can be removed from the examination room after it has been begun.

DIVISION LISTS.

(See Regulations, Page 9.)

SENIOR CANDIDATES.

SECTION A. (English.)—*First Division, in order of Merit.*

* * Candidates in brackets are equal, and their names in alphabetical order.

Candidate's Number.	Place of Examination.	Name.	Residence.	Date of Birth.	School.
15	Oxford	Clarke, E. G.	Moorgate St., London	Feb. 15, 1841	Crosby Hall Evening Classes
{ 8	Birmingham	Clifford, C. W.	Islington Row, Birmingham	June 24, 1840	Proprietary S., Edgbaston
{ 22	Liverpool	Marquis, J.	Birchfield, Lancashire	Sept. 20, 1841	Clare Mount S., Wallasey
9	Liverpool	Fell, H.	Wigton	Nov. 22, 1840	Grammar S., Appleby
29	Oxford	Moule, H. C. G.	Fordington, Dorset	Dec. 23, 1841	Fordington Vicarage
13	Oxford	Drewett, W. H.	Burton on Trent	Mar. 25, 1842	Grammar S., Burton on Trent
33	Leeds	Stocks, S. H.	Huddersfield	Mar. 11, 1841	Private S., Huddersfield
10	Liverpool	Graham, H. J.	Penrith	July 22, 1840	Grammar S., Appleby
4	Exeter	Rawle, H. J.	Taunton	Apr. 11, 1843	Mansion House S., St. David's, Exeter
{ 28	Exeter	Lethbridge, E.	Plymouth	Dec. 23, 1840	Wellington Villa, Mannamoad
{ 32	Birmingham	Swanwick, J. A.	Alderley Edge	Feb. 28, 1843	Proprietary S., Edgbaston
6	Bath	Evanson, C. P.	Fairfield Villa, Bristol	Jan. 31, 1842	Grammar S., Bristol
364	London	Long, T.	Clapham Park	Jan. 22, 1842	Clapham Park S.
1	Liverpool	Bigham, J. C.	Chatham St., Liverpool	Aug. 3, 1840	Dorotheenstaedtsche Real-S., Berlin

SECTION A. (English.)—*Second Division, in Alphabetical order.*

8	Liverpool	Atkinson, G. T.	Crosby Ravensworth	Feb. 12, 1841	Grammar S., Appleby
4	Birmingham	Beale, J. S.	Edgbaston	Dec. 5, 1840	Proprietary S., Edgbaston
6	Liverpool	Bell, J. R.	Liverpool	Aug. 21, 1841	Collegiate Institution, Liverpool
308	London	Benecke, E. C.	Denmark Hill	Jan. 12, 1843	Collegiate S., Camberwell
311	London	Bott, A.	Hanover Terrace, Peckham	Aug. 16, 1842	Collegiate S., Camberwell
11	Bath	Candole, H. S. V. de	Newton House, Bristol	June 25, 1841	Cotham, Bristol
2	Liverpool	Chapman, V. W.	Preston	Feb. 14, 1843	Avenham House S.
21	Liverpool	Cooke, J.	Birkenhead	Apr. 19, 1842	Park S., Birkenhead
26	Exeter	Croft, A. W.	Plymouth	Feb. 7, 1841	Wellington Villa, Mannamead
16	Leeds	Crosthwaite, W. H.	St. Andrew's Vicarage, Leeds	Oct. 12, 1840	Grammar S., Leeds
320	London	Dangar, J. G.	Kentish Town	Nov. 20, 1841	North London Collegiate S.
9	Birmingham	Devonshire, H. J. A.	Birmingham	Feb. 25, 1841	King Edward's S., Birmingham
22	Exeter	Drew, W.	Pennaur, Cornwall	Dec. 6, 1840	Probus S.
27	Cheltenham	Ford, T.	Gloucester	May 3, 1843	Blue Coat S., Gloucester
28	Liverpool	Gandy, C.	Oakland, Westmorland	July 10, 1840	Windermere College
13	Birmingham	Grimley, W. H.	Birmingham	Jan. 24, 1841	King Edward's S., Birmingham
9	Bath	Hale, G.	Ascension House, Bristol	Jan. 5, 1841	Grammar S., Bristol
344	London	Hardy, F. J.	Brunswick Sq., Camberwell	July 26, 1842	Collegiate S., Camberwell
2	Bath	Harwood, E.	Almondsbury near Bristol	June 19, 1841	Spring Hill House, Southampton
3	Bath	Harwood, S.	Almondsbury near Bristol	Feb. 18, 1843	Grove House S., Tottenham
19	Birmingham	Holliday, J. R.	Birmingham	Oct. 18, 1840	Proprietary S., Edgbaston
351	London	Holtham, E. G.	Buckingham Pl., Brighton	Jan. 20, 1841	Montpellier House, Brighton
354	London	Hughesdon, J. C.	India	Oct. 25, 1842	Grammar S., Sutton Valeree
12	Cheltenham	Kimpton, W. J.	Stadhampton	Aug. 7, 1840	Grammar S., Northleach

SECTION A.—(English.) *Second Division continued.*

Candidate's Number.	Place of Examination.	Name.	Residence.	Date of Birth.	School.
32	Leeds	Lister, A.	Leeds	Aug. 23, 1842	Mechanics Institute, Leeds
1	Exeter	M'Kay, D. O. L.	Devonport	Aug. 5, 1840	Grammar S., Stoke near Devonport
22	Birmingham	Maekenzie, A.	Birmingham	June 28, 1842	King Edward's S., Birmingham
367	London	Martineau, H. Le Vert	Anerley	May 12, 1843	Collegiate S., Brixton Hill
20	Liverpool	Masefield, G. E.	Ledbury	Jan. 15, 1842	Park S., Birkenhead
9	Bedford	Mays, A. F.	Bedford	May 23, 1841	Commercial S., Bedford
24	Birmingham	Middlemore, T.	Birmingham	Feb. 11, 1842	Proprietary S., Edgbaston
25	Oxford	Moody, C. U.	Goswell Road, Islington	Feb. 14, 1841	Mt. Pleasant House, Sunbury
371	London	Moore, F.	Knightsbridge	Nov. 10, 1842	Totteridge Parks, Herts
372	London	Moore, H. W.	Lansdowne Pl., Brighton	Nov. 11, 1842	Montpellier House, Brighton
3	Cheltenham	Phillips, A.	Bridgewater	Apr. 30, 1841	Grammar S., Cheltenham
3	Exeter	Rawle, T.	Taunton	Mar. 15, 1842	Mansion House S., St. David's, Exeter
11	Bedford	Rose, E. P.	Bedford	Dec. 29, 1840	Grammar S., Cheltenham
2	Cheltenham	Sharwood, T. H.	Ramsgate	Jan. 11, 1843	Collegiate Institution, Liverpool
36	Liverpool	Sirdifield, W. F.	Tamworth	June 21, 1840	Grammar S., Leeds
8	Leeds	Snowdon, J.	Leeds	Aug. 25, 1841	Park S., Birkenhead
19	Liverpool	Squires, H. L.	Ross-Trevor, Newry	Nov. 12, 1840	Proprietary S., Edgbaston
33	Birmingham	Talbot, C. H.	Edgbaston	Apr. 1, 1842	Blue Coat S., Gloucester
36	Cheltenham	Taylor, E. G.	Gloucester	Jan. 11, 1842	Percy Street Academy, Newcastle
48	Oxford	Thorburn, R.	Newcastle-on-Tyne	Nov. 13, 1842	Grammar S., Bristol
8	Bath	Tovey, D. C.	Royal York Crescent, Bristol	Feb. 28, 1842	Grammar S., Bristol
10	Bath	Walter, J.	Queen's Parade, Bristol	July 15, 1842	Collegiate S., Gloucester
12	Bedford	Walton, J. B.	Bedford	Aug. 8, 1840	Grammar S., Bath
20	Cheltenham	Washbourn, J. A. R.	Gloucester	Aug. 12, 1841	Wellington Villa, Mannamend
4	Bath	Watts, E. W.	Broad St., Bath	Oct. 31, 1840	
27	Exeter	Wolferstan, T.	Ford Park, Plymouth	Dec. 3, 1840	

* * Candidates in brackets are equal, and their names in alphabetical order.

8	Birmingham	Clifford, C. W.	Islington Row, Birmingham	June 24, 1840	Proprietary S., Edgbaston
8	Leeds	Snowdon, J.	Leeds	Aug. 25, 1841	Grammar S., Leeds
25	Oxford	Moody, C. U.	Goswell Road, Islington	Feb. 14, 1841	Mt. Pleasant House, Sunbury
9	Bath	Hale, G.	Ascension House, Bristol*	Jan. 5, 1841	Grammar S., Bristol
1	Bath	Hulbert, W. A.	East Ilsley	Sept. 14, 1840	Shaw House, Melksham
407	London	Jardine, W.	Dunstable	May 16, 1841	Fordington Vicarage
29	Oxford	Moule, H. C. G.	Fordington	Dec. 23, 1841	Collegiate S., Camberwell
308	London	Benecke, E. C.	Denmark Hill	Jan. 12, 1843	Grammar S., Leeds
16	Leeds	Crothwaite, W. H.	St. Andrew's Vicarage, Leeds	Oct. 12, 1840	Cotham, Bristol
13	Bath	Cole, W. R.	Cotham, Bristol	June 25, 1841	Cotham, Bristol
11	Bath	Candole, H. S. V. de	Newton House, Bristol	June 25, 1841	Cotham, Bristol
346	London	Herring, C. G.	Kensington	June 17, 1842	Montpellier House, Brighton
372	London	Moore, H. W.	Lansdowne Place, Brighton	Nov. 11, 1842	Montpellier House, Brighton
26	Exeter	Croft, A. W.	Plymouth	Feb. 7, 1841	Wellington Villa, Mannamead
19	Liverpool	Squires, H. L.	Ross-Trevor, Newry	Nov. 12, 1840	Park S., Birkenhead
6	Bath	Evanson, C. P.	Fairfield Villa, Bristol	Jan. 31, 1842	Grammar S., Bristol
320	London	Dangar, J. G.	Kentish Town	Nov. 20, 1841	North London Collegiate S.
405	London	Hewett, W. T.	Tewkesbury	July 27, 1840	
22	Birmingham	Mackenzie, A.	Birmingham	June 28, 1842	King Edward's S., Birmingham
20	Cheltenham	Washbourne, J. A. R.	Gloucester	Aug. 12, 1841	Collegiate S., Gloucester
9	Liverpool	Fell, H.	Wigton	Nov. 22, 1840	Grammar S., Appleby
339	London	Grist, W.	Norwood, Surrey	July 7, 1840	Belvidere House, Norwood
383	London	Searle, T. J.	Bloomsbury Place, London	Mar. 6, 1842	North London Collegiate S.
4	Bath	Watts, E. W.	Bath	Oct. 31, 1840	Grammar S., Bath
28	Exeter	Lethbridge, E.	Plymouth	Dec. 23, 1840	Wellington Villa, Mannamead

SECTION B. (Languages.) – Second Division, in Alphabetical order.

Candidate's Number	Place of Examination.	Name.	Residence.	Date of Birth.	School.
4	Birmingham	Beale, J. S.	Edgbaston	Dec. 5, 1840	Proprietary S., Edgbaston
1	Liverpool	Bigham, J. C.	Chatham St., Liverpool	Aug. 3, 1840	Dorotheenstaetische Real-S., Berlin
311	London	Bott, A.	Hanover Terrace, Peckham	Aug. 16, 1842	Collegiate S., Camberwell
28	Leeds	Butterworth, R. W.	Huddersfield	Aug. 31, 1841	Huddersfield College
20	Oxford	Bottle, A.	Dover	July 1, 1842	
17	Leeds	Cadman, E. S.	Handsworth Grange, Sheffield	July 10, 1841	Bramham College, near Tadcaster
2	Liverpool	Chapman, V. W.	Preston	Feb. 14, 1843	Avenham House S.
21	Liverpool	Cooke, J.	Birkenhead	April 19, 1842	Park S., Birkenhead
18	Cheltenham	Cowie, H. G.	Norwood, Surrey	April 26, 1841	College S., Gloucester
10	Exeter	Creed, W.	Abbotskerswell, Devon	Sept. 5, 1842	Great House, Newton Abbot
7	Leeds	Dresser, J. N.	Halifax	April 4, 1841	Netham Hall Ac ^y , Houghton-le-Spring
13	Oxford	Drewett, W. H.	Burton on Trent	Mar. 25, 1842	Grammar S., Burton on Trent
36	Leeds	Easther, C. E. Le Grice	Beverley	Dec. 31, 1840	
327	London	Emanuel, B.	Portsmouth	Feb. 4, 1842	
6	Southampton	Foster, H. P.	Portsmouth	Sept. 22, 1840	
333	London	Franck, H. H.	Guilford St. Russell Sq., Lond.	Sept. 8, 1842	Montpellier House, Brighton
13	Birmingham	Grimley, W. H.	Birmingham	Jan. 24, 1841	King Edward's S., Birmingham
344	London	Hardy, F. J.	Brunswick Sq., Camberwell	July 26, 1842	Collegiate S., Camberwell
2	Bath	Harwood, E.	Almondsbury, Bristol	June 19, 1841	Spring Hill House, Southampton
3	Bath	Harwood, S.	Almondsbury, Bristol	Feb. 18, 1843	Grove House S., Tottenham
351	London	Holtham, E. G.	Buckingham Pl., Brighton	Jan. 20, 1841	Montpellier House, Brighton
354	London	Hughesdon, J. C.	India	Oct. 25, 1842	Grammar S., Sutton Valence

23	Manchester	Irland, A.	Bowdon, Cheshire	Nov. 12, 1842	Bowdon
43	Oxford	Jadis, E. W.	Campden, Gloucestershire	Sept. 22, 1840	Grammar S., Campden
5	Bedford	Jamblin, R.	Peterborough	Jan. 29, 1842	Cathedral Gr. S., Peterborough
364	London	Long, T.	Clapham Park	Jan. 22, 1842	Clapham Park S.
1	Oxford	Lowndes, R. B.	Lancaster	May 3, 1841	Trinity College, Glensalmond
11	Manchester	Madeley, J. C.	Ardwick	Nov. 17, 1840	Chorlton High S., Manchester
22	Liverpool	Marquis, J.	Birehfield, Lancashire	Sept. 20, 1841	Clare Mount S., Wallasey
20	Liverpool	Masefield, G. E.	Ledbury	Jan. 15, 1842	Park S., Birkenhead
25	Birmingham	Mitehell, F. W. V.	Edgbaston	Feb. 2, 1842	Proprietary S., Edgbaston
373	London	Murdoch, W.	Rotherhithe St., London	Dec. 12, 1840	N. London Collegiate S.,
4	Exeter	Rawle, H. J.	Taunton	April 11, 1843	Mansion House S. St. David's, Exeter
4	Leeds	Rusby, A.	Leeds	Nov. 9, 1840	Grammar S., Leeds
5	Bath	Russell, C. D.	Terrace Walk, Bath	Mar. 14, 1842	Grammar S., Bath
382	London	Sankey, G. F.	Hastingleigh, Kent	Nov. 29, 1842	Belvidere House S., Upper Norwood
13	Manchester	Smith, W. T.	Hill End, Burnley	Mar. 30, 1842	Hawthorn Hall, Wilmslow
33	Leeds	Stoaks, S. H.	Huddersfield	Mar. 11, 1841	Private S., Huddersfield
15	Cheltenham	Swann, H.	Gloucester	Aug. 29, 1843	Grammar S., Cheltenham
48	Oxford	Thorburn, R.	Newcastle on Tyne	Nov. 13, 1842	Percy St. Academy, Newcastle
7	Oxford	Tootell, J.	Maidstone, Kent	Feb. 4, 1842	Chatham House, Ramsgate
8	Bath	Tovey, D. C.	Royal York Crese., Bristol	Feb. 28, 1842	Grammar S., Bristol
35	Birmingham	Waddell, T. B.	Birmingham	Feb. 14, 1841	King Edward's S., Birmingham
395	London	Waddelow, J. R.	Lakenheath, Suffolk	Mar. 27, 1842	Belvidere House, Upper Norwood
16	Manchester	Walmsley, R.	Bolton-le-Moors	Nov. 18, 1842	Stony Knolls High S., Manchester
27	Exeter	Wolferstan T.	Ford Park, Plymouth	Dec. 3, 1840	Wellington Villa, Mannamead

SECTION C. (Mathematics.)—*First Division, in order of Merit.*

Candidate's Number.	Place of Examination.	Name.	Residence.	Date of Birth.	School.
16	Leeds	Crosthwaite, W. H.	St. Andrew's Vicarage, Leeds	Oct. 12, 1840	Grammar S., Leeds
8	Leeds	Snowdon, J.	Leeds	Aug. 25, 1841	Grammar S., Leeds
26	Exeter	Croft, A. W.	Plymouth	Feb. 7, 1841	Wellington Villa, Mannamead
9	Bath	Hale, G.	Ascension House, Bristol	Jan. 5, 1841	Grammar S., Bristol
56	Oxford	Williams, J.	Blaenllynant, Carmarthen	Nov. 6, 1840	Normal College, Swansea
4	Birmingham	Beale, J. S.	Edgbaston	Dec. 5, 1840	Proprietary S., Edgbaston
1	Exeter	McKay, D. O. L.	Devonport	Aug. 5, 1840	Grammar S., Stoke, near Devonport
1	Leeds	Pickard, A.	Leeds	Sept. 25, 1841	Young Men's Christian Institute, Leeds
32	Leeds	Lister, A.	Leeds	Aug. 23, 1842	Mechanics Institute, Leeds
34	Birmingham	Titley, W. J.	Birmingham	Sept. 6, 1841	King Edward's S., Birmingham

SECTION C. (Mathematics.)—*Second Division, in Alphabetical order.*

6	Liverpool	Bell, J. R.	Liverpool	Aug. 21, 1841	Collegiate Institution, Liverpool
6	Bath	Evanson, C. P.	Fairfield Villa, Bristol	Jan. 31, 1842	Grammar S., Bristol
4	Bedford	Gostling, D. E.	Bedford	June 11, 1842	Commercial S., Bedford
13	Birmingham	Grimley, W. H.	Birmingham	Jan. 24, 1841	King Edward's S., Birmingham
19	Birmingham	Holliday, J. R.	Birmingham	Oct. 18, 1840	Proprietary S., Edgbaston
351	London	Holtham, E. G.	Buckingham Place, Brighton	Jan. 20, 1841	Montpellier House, Brighton
28	Exeter	Lethbridge, E.	Plymouth	Dec. 23, 1840	Wellington Villa, Mannamoad
22	Liverpool	Marquis, J.	Birchfield, Lancashire	Sept. 20, 1841	Clare Mount S., Wallasey
14	Liverpool	Parry, J.	Vauxhall Road, Liverpool	Mar. 4, 1842	Collegiate Institution, Liverpool
27	Birmingham	Patterson, W. R.	Moville, Donegal	Nov. 4, 1842	The Old Hall, Wellington, Shropshire
24	Manchester	Potts, J. N.	Stockport	Sept. 1840	Grammar S., Stockport
4	Exeter	Rawle, H. J.	Taunton	Apr. 11, 1843	Mansion House S., St. David's, Exeter
383	London	Searle, T. J.	Bloomsbury Place, London	Mar. 6, 1842	North London Collegiate S.
33	Leeds	Stocks, S. H.	Huddersfield	Mar. 11, 1841	Private S., Huddersfield

SECTION D. (Physics.)—*First Division, in order of Merit.*

Candidate's Number.	Place of Examination.	Name.	Residence.	Date of Birth.	School.
22	Liverpool	Marquis, J.	Birchfield, Lancashire	Sept. 20, 1841	Clare Mount S., Wallasey
331	London	Foster, C. Le Neve	Wandsworth	Mar. 23, 1841	
2	Liverpool	Chapman, V. W.	Preston	Feb. 14, 1843	Avenham House S.
6	Liverpool	Bell, J. R.	Liverpool	Aug. 21, 1841	Collegiate Institution, Liverpool
13	Southampton	Flight, W.	Winchester	Jan. 21, 1841	Queenwood College, Stockbridge
33	Leeds	Stocks, S. H.	Huddersfield	Mar. 11, 1841	Private S., Huddersfield

SECTION D. (Physics.)—*Second Division, in Alphabetical order.*

4	Birmingham	Beale, J. S.	Edgbaston	Dec. 5, 1840	Proprietary S., Edgbaston.
323	London	Dixon, J. W.	Kensington	Sept. 10, 1842	Clarendon House, Lambeth
21	Southampton	Payne, S.	Wallingford	April 11, 1843	Queenwood College, Stockbridge
14	Liverpool	Parry J.	Vauxhall Road, Liverpool	Mar. 4, 1842	Collegiate Institution, Liverpool

SECTION E. (Drawing and Architecture.)—*First Division, in order of Merit.*

19	Birmingham	Holliday, J. R.	Birmingham	Oct. 18, 1840	Proprietary S., Edgbaston
335	London	Gooch, W. D.	Frimley, Surrey	Mar. 7, 1842	Clarendon House, Lambeth
351	London	Holtham, E. G.	Buckingham Place, Brighton	Jan. 20, 1841	Montpellier House, Brighton

SECTION E. (Drawing and Architecture.)—*Second Division, in Alphabetical order.*

28	Liverpool	Gandy C.	Oakland, Westmorland	July 10, 1840	Windermere College
55	Oxford	Millin, G. F.	Oxford	Aug. 3, 1840	St. John St., Oxford

SECTION F. (Music.)—*First Division, in order of Merit.*

6	Bath	Evanson, C. P.	Fairfield Villa, Bristol	Jan. 31, 1842.	Grammar S., Bristol
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GENERAL ALPHABETICAL LIST.

Candidate's Number.	Place of Examination.	Name.	Residence.	Date of Birth.	School.
303	London	Andrews, R. H.	Sandhurst, Australia	Jan. 26, 1842	Bowdon, Cheshire
304	London	Atkinson, R.	Dorchester Place, London	Oct. 26, 1840	
20	Manchester	Boult, C. A.	Manchester	July 15, 1842	
25	Liverpool	Boult, F. C.	Manchester	Oct. 9, 1840	Totteridge Parks, Herts
305	London	Barnes, J. O. Neale	Lambourne, Berks	Mar. 30, 1842	
313	London	Brenridge, R.	Mount Gardens, Westm. Rd.	Mar. 28, 1841	
314	London	Brookman, F.	Lonsdale Villas, Bayswater	Jan. 23, 1844	Grammar S., Bayswater
4	Liverpool	Brown, J. C.	Formby	Jan. 16, 1841	Collegiate Institution, Liverpool
5	Liverpool	Conor, J. H.	Islington, Liverpool	Oct. 7, 1841	Collegiate Institution, Liverpool
20	Southampton	Cooper, C. W.	Leicester	Oct. 19, 1842	Queenwood College, Stockbridge
33	Cheltenham	Davies, R. E.	Court House, Merthyr	Oct. 15, 1841	Grammar S., Swansea
324	London	East, W.	Kingston on Thames	Nov. 6, 1842	Totteridge Park, Herts
7	Exeter	Edwards, S.	Tavistock	Dec. 3, 1841	Union Terrace Academy, Barnstaple
12	Birmingham	Estill, A. L.	Knotty Ash, Liverpool	Nov. 17, 1841	Proprietary S., Edgbaston
6	Manchester	Foley, R. A.	Ardmore, Waterford	Dec. 9, 1841	Hawthorn Hall, Wilmslow
24	Southampton	Folliott, J. B.	Gussage All Saints, Dorset	May 6, 1841	Christchurch, Hants
21	Manchester	Galloway, H.	Old Trafford	June 9, 1841	College Français, Blackpool

16	Birmingham	Gribble, F. W.	Derby	Jan. 7, 1841	Grammar S., Derby
23	Leeds	Hardy, H. J.	Huddersfield	Aug. 6, 1840	Proprietary S., Huddersfield
8	Bedford	Herbert, F. S.	Bedford	Jan. 5, 1841	Grammar S., Bedford
357	London	Knight, G. T.	Battersea	Mar. 31, 1844	Oxford House S., King's Rd., Chelsea
11	Oxford	Lawton, C. P.	Newcastle-under-Lyme	Sept. 15, 1842	Grammar S., Newcastle-under-Lyme
9	Manchester	Lee, H. G.	Thame, Oxfordshire	Aug. 15, 1840	Chorlton High S., Manchester
10	Manchester	Lynill, C. S. S.	Manchester	Feb. 13, 1843	Broomfield House, Headingley
11	Leeds	Millard, J. G.	Tottenham, Middlesex	Mar. 24, 1843	Normal College, Swansea
51	Oxford	Morgan, J. L.	St. Helen's, Swansea	July 23, 1842	Mansion House S., St. David's, Exeter
2	Exeter	Oliver, J.	Exeter	June 13, 1841	Collegiate Institution, Liverpool
15	Liverpool	Phillips, R. E.	Wavertree, Lancashire	Oct. 10, 1842	Mansion Gram. S., Litherhead
379	London	Reynier, J. B.	Ashton-under-Lyne	Nov. 27, 1841	King's College S., Strand
25	Southampton	Reynolds, W.	Southampton	Oct. 30, 1840	Boston Spa College
412	London	Rixon, J. S.	Tulse Hill, Brixton	Jan. 13, 1842	
15	Leeds	Sergeant, L.	Boston Spa, Yorkshire	Nov. 10, 1841	
34	Liverpool	Sharp, W. F.	Caton, Lancashire	May 17, 1841	
4	Cheltenham	Smith, R. B.	Bridgewater	Oct. 5, 1841	Grammar S., Cheltenham
35	Oxford	Stiles, J. C. P.	Lutterworth	Nov. 23, 1841	Ullesthorpe House, Lutterworth
12	Oxford	Thornton, J.	Wanstcad Housc, Cambridge	Feb. 25, 1843	Llandaff House, Cambridge
396	London	Warner, J. L.	Euston Road, London	Apr. 3, 1843	North London Collegiate S.
18	Manchester	Wilson, J. G.	Manchester	Mar. 29, 1842	College Français, Blackpool
19	Manchester	Wolfenden, H.	Bolton	Mar. 19, 1843	Stony Knolls High S., Manchester
22	Southampton	Woodward, H. C.	Ashchurch, Tewkesbury	Oct. 15, 1842	Queenwood College, Stockbridge

DIVISION LISTS.

(See Regulations, Page 6.)

JUNIOR CANDIDATES.

First Division, in order of Merit.

* * Candidates in brackets are equal, and their names in alphabetical order.

Candidate's Number.	Place of Examination.	Name.	Residence.	Date of Birth.	School.
39	Liverpool	Reynolds, R. J.	Ambleside	Jan. 16, 1844	Windermere College
2	Liverpool	Gardner, W. R.	Huyton	Sept. 6, 1843	Carlton Terrace S., Liverpool
6	Exeter	Clifford, W. K.	Exeter	May 4, 1845	Mansion House S., St. David's, Exeter
40	Liverpool	Riehardson, W. F.	Lanerigg, Grasmere	July 14, 1843	Windermere College
24	Exeter	Pulliblack, J.	Kingsbridge	July 10, 1843	Grammar S. Kingsbridge
25	Oxford	Coon, J.	Carlton Hill, London	Dec. 25, 1843	Craufurd College, Maidenhead
215	London	Wilkins, A. S.	West Brixton, Surrey	Aug. 5, 1843	Collegiate S., Bishops Stortford
37	Cheltenham	Appleby, A.	Worcester	Sept. 1, 1843	New Kingswood S., Bath
15	London	Beaufoy, W. S.	Chart Sutton, Kent	Dec. 18, 1843	Grammar S., Sutton Valence
4	Oxford	Page, R.	Ramsgate	July 1, 1843	Chatham House, Ramsgate
62	Oxford	Roberts, Griffith	Aberdare	June 30, 1844	Normal College, Swansea

49	Oxford	Blacket, E. K.	Newbury	Dec. 20, 1843	Woodspeen Academy, Newbury
4	Bath	Evans, H. H.	Clifton	Dec. 3, 1843	Grammar S., Bristol
18	London	Bennett, H.	Clapham Park, Surrey	Aug. 11, 1843	Collegiate S., Brixton Hill
66	Leeds	Webb, J. E.	Huddersfield	Dec. 9, 1843	Huddersfield College
10	Liverpool	Warr, H. D.	Liverpool	Aug. 4, 1843	Royal Institution S., Liverpool
10	Bath	Watts, B. H.	Broad St., Bath	Mar. 2, 1845	Rectory Middle S., Bath
3	Southampton	Legg, J. W.	Gosport	Dec. 28, 1843	Dioesan S., Portsea
{ 35	Cheltenham	Bytheway, H.	Gloucester	Aug. 8, 1843	New Kingswood S., Bath
{ 31	Exeter	Creed, J. A.	Abbotskerswell	Oct. 14, 1843	Great House, Newton Abbot
{ 6	Bath	Evans, H. F.	Waleot	Mar. 6, 1845	Grammar S., Bath
{ 23	Liverpool	Smith, G. A.	Newton le Willows	Sept. 17, 1843	Grammar S., Newton le Willows
75	London	Harrison, T. W.	Camberwell	Feb. 16, 1844	Grammar S., Denmark Hill
30	Exeter	Waymouth, S.	St. Mary Church	Apr. 14, 1844	Tor S., Torquay
34	Bath	Massy, V. T.	Cottesmore, Pembroke	Nov. 4, 1843	The Hermitage, Bath
32	Bath	Genge, E. H.	Trent, Somerset	Dec. 24, 1843	The Hermitage, Bath
134	London	Obbard, A. N.	Denmark Hill	Aug. 13, 1844	Collegiate S., Camberwell
48	Exeter	Cross, John	Devonport	Aug. 22, 1844	Nelson House, Devonport
36	Bath	Bethell, H.	Bath	Aug. 18, 1843	Cotham, Bristol
11	London	Balls, T.	Brixton	Dec. 4, 1843	North London Collegiate S.

Second Division, in Alphabetical order.

Candidate's Number.	Place of Examination.	Name.	Residence.	Date of Birth.	School.
4	London	Adrian, A. W. H.	Cumming St., London	Oct. 26, 1844	St. Thos. Charterhouse, Goswell S.
3	London	Adrian, A. D.	Charrington St., London	July 9, 1845	North London Collegiate S.
1	Manchester	Andrew, A.	Springhead, Lees	Aug. 14, 1843	Daisy Bank House, Manchester
9	London	Baines, E. M.	Burley, Yorkshire	Oct. 7, 1843	Mansion Grammar S., Letherhead
20	Bath	Bayliffe, A. M.	Chippenham	Apr. 24, 1844	Academy, Chippenham
65	Oxford	Bean, A. H.	Colchester	June 28, 1844	Royal Grammar S., Colchester
24	Bath	Beaven, A.	Redland	Mar. 14, 1847	Grammar S., Bristol
13	Oxford	Betts, G. L.	Bury St. Edmunds	Dec. 18, 1843	Commercial S., Bury St. Edmunds
24	Oxford	Bird, A.	Edgware Road, London	Dec. 1, 1843	Craufurd College, Maidenhead
24	London	Bowden, F. J.	Greenwich	Dec. 24, 1843	Collegiate S., Greenwich
22	Southampton	Buckell, F. J.	Romsey	Aug. 2, 1844	Queenwood C., Stockbridge
32	London	Burls, E. G.	Peckham Rye	Apr. 25, 1844	Denmark Hill Grammar S.
38	Liverpool	Butcher, G. H. F.	Endcliffe	Aug. 12, 1843	Windermere College
12	Bath	Brice, S. W.	Vobster Coal Works, Frome	Mar. 18, 1844	Grammar S., Shepton Mallet
15	Liverpool	Caine, N.	Egremont	Dec. 30, 1843	Park S., Birkenhead
6	Liverpool	Caldecote, J. G.	Chester	June 28, 1843	King's S., Chester
4	Leeds	Calder, F. W.	Chesterfield	Nov. 10, 1843	Grammar S., Chesterfield
7	Bath	Colthurst, E. B.	Bristol	July 27, 1843	Grammar S., Bristol
1	Cheltenham	Corfield, W. H.	Cheltenham	Dec. 14, 1843	Grammar S., Cheltenham
14	Southampton	Curtin, J. A.	Gosport	Feb. 27, 1844	College, Southampton
4	Exeter	Daw, S. J.	Torquay	Apr. 6, 1844	Mansion House S., St. David's, Exeter
12	Birmingham	Doidge, H.	Birmingham	Jan. 7, 1845	Proprietary S., Edgbaston

50	Liverpool	Ewart, E. B.	Liverpool	July 26, 1844	High S., Liverpool Institute
2	Bath	Falkner, W.	Bath	Jun. 23, 1843	Shaw House, Melksham
52	Bath	Ferrier, H. J.	Redland	Jan. 10, 1844	Grammar S., Bristol
89	London	Froude, W.	Madras	Sept. 7, 1843	North Cheam House, Surrey
28	Leeds	Gent, J.	Stanhope, Durham	July 19, 1844	
1	Exeter	Gladstone, F. E.	St. Mary Church	Mar. 2, 1845	St. Mary Church
68	London	Gopp, J. I.	Hackney	May 7, 1844	Madras House, Hackney
10	Bedford	Gostiek, A. J.	Bedford	Sept. 14, 1844	Commereial S., Bedford
44	Leeds	Gourlay, J. M.	Bradford	Jun. 30, 1843	Manor Row Academy, Bradford
31	Bath	Gower, G. H.	Bath	Mar. 7, 1844	The Hermitage, Bath
6	Southampton	Gray, C.	Weymouth	Oct. 1, 1845	Thomas Street, Weymouth
22	Cheltenham	Hall, F. E.	Lea Parsonage, Ross	Dec. 26, 1843	The College S., Gloucester
2	Exeter	Hallett, C.	Plymouth	Jan. 3, 1844	Devonshire Terrace, Plymouth
2	Manchester	Harrison, R.	Burnley	Aug. 4, 1843	Grammar S., Burnley
74	London	Hart, P.	Haverstock Hill	May 25, 1844	N. London Collegiate S.
77	London	Hastie, J. H.	Camberwell Grove	Apr. 16, 1845	Collegiate S., Camberwell
79	London	Henderson, J.	Kensington	Aug. 13, 1843	Hanwell College S.
20	Birmingham	Hilliers, G. C.	Brighton	Feb. 24, 1844	Sutton Coldfield
21	Bath	Hill, V. W.	Chippenham	Feb. 6, 1844	Academy, Chippenham
12	Bedford	Hipwell, W.	Sharnbrook	Nov. 2, 1843	Totteridge Park, Herts.
44	Manchester	Hodgson, E.	Manchester	Sept. 22, 1843	Victoria Park S., Manchester
45	Manchester	Hodgson, R. G.	Manchester	Mar. 9, 1845	Victoria Park S., Manchester
8	Liverpool	Honeyburne, J. H.	Liverpool	July 15, 1844	Collegiate Institution, Liverpool
84	London	Horwood, F.	Lewisham	May 13, 1844	Proprietary S., Greenwich
46	Liverpool	Hurst, B. T.	St. Helen's, Lancashire	July 1, 1844	New Kingswood College, Bath
4	Cheltenham	Jayne, F. J.	Panty Bailea, Brecon	Jan. 1, 1845	Grammar S., Cheltenham
17	Cheltenham	Jones, J.	Brecon	Feb. 17, 1844	Christ's College S., Brecon

Candidate's Number.	Place of Examination.	Name.	Residence.	Date of Birth.	School.
23	Oxford	King, J. C.	Clare, Suffolk	Feb. 2, 1845	Vale Academy, Ramsgate
7	Liverpool	Laidman, G. J.	Liverpool	Aug. 29, 1845	Collegiate Institution, Liverpool
101	London	Lang, W.	St. John's Wood	Dec. 14, 1843	Loudoun House, St. John's Wood
33	Bath	Leach, F.	Corston, Pembroke	July 28, 1843	The Hermitage, Bath
14	Bedford	Le Mesurier, B.	Bedford	Nov. 4, 1843	Grammar S., Bedford
1	Bath	Leonard, H. S.	Clifton	Feb. 3, 1844	Shaw House, Melksham
47	Liverpool	Lewis, A. H.	Liverpool	Dec. 15, 1843	Royal Institution S., Liverpool
55	Liverpool	Lloyd, R. J.	Liverpool	Oct. 14, 1846	Commercial S., Liverpool Institute
8	Oxford	Mansbridge, H.	Basing, Hants.	July 23, 1843	Queen's Grammar S., Basingstoke
19	Liverpool	Masefield, R. B.	Ledbury	Jun. 30, 1843	Park S., Birkenhead
190	London	Maunders, G. H.	Chelsea	Nov. 8, 1844	Marlborough House, Brompton
117	London	Meech, H. M.	Moseley, Birmingham	Oct. 25, 1843	Grammar S., Denmark Hill
55	Manchester	Millington, T.	Altringham	Oct. 2, 1844	Belfield House, Bowdon
32	Birmingham	Mitchell, J.	Leicester	Sept. 18, 1844	Middle S., Charles Street, Leicester
122	London	Morfee, E.	Peckham	Aug. 17, 1844	Proprietary S., Greenwich
9	Oxford	Moss, J. M.	Anfield, Lancashire	Aug. 18, 1843	Queen's Grammar S., Basingstoke
125	London	Murray, W. C.	Holborn	May 27, 1844	St. Thos. Charterhouse, Goswell Street
60	Manchester	Nash, T.	Bowdon	Jun. 17, 1844	Belfield House, Bowdon
29	Exeter	Paige, F.	Torquay	July 21, 1843	Tor School, Torquay
140	London	Pask, I.	Camden Town	Aug. 17, 1843	North London Collegiate S.
50	Oxford	Payton, J.	Solihull	Apr. 10, 1844	Ullesthorpe House, Lutterworth
35	Exeter	Pearee, J.	Okehampton	Jan. 4, 1844	Kingswood S., Bath
18	Exeter	Rew, W.	Exwick Barton	Apr. 3, 1844	Mansion House S., St. David's, Exeter
14	Cheltenham	Rich, W. E.	Wellesley near Tetbury	May 19, 1844	Grammar S., Cheltenham
165	London	Rivett, W. J.	Stratford	Dec. 2, 1843	Collegiate S., Brixton Hill
53	Liverpool	Roberts, D. T.	Liverpool	Mar. 15, 1846	Commercial S., Liverpool Institute

173	London	Russell, H. W.	Haekney	Dec. 25, 1843	Church of England Gr. S., Haekney
42	Birmingham	Ryland, W. H.	Edgbaston	July 12, 1844	Proprietary S., Edgbaston
174	London	Sandall, F.	Southwark	July 11, 1844	Clarendon House, Lambeth
175	London	Sankey, W. H.	Hastingleigh, Kent	July 4, 1844	Belvidere House S., Upper Norwood
178	London	Sedgwick, W. H.	Haverstock Hill	Feb. 1, 1845	North London Collegiate S.
15	Bath	Shaw, G. B.	Bath	Jun. 5, 1844	Grammar S., Bath
183	London	Sisley, C.	Greenwich	Jan. 1, 1844	Proprietary S., Greenwich
25	Cheltenham	Smith, R. V.	Gloucester	July 11, 1843	College S., Gloucester
3	Exeter	Spalding, W.	Exeter	July 2, 1844	Mansion House S., St. David's, Exeter
67	Oxford	Sparling, P. W.	Colechester	Feb. 6, 1844	Royal Grammar S., Colechester
188	London	Stanton, L. W.	Notting Hill	Oct. 14, 1843	St. John's S., Walthamstow
49	Birmingham	Stegmann, E. B.	Nottingham	Nov. 15, 1843	University S., Nottingham
54	Leeds	Stocks, J. E.	Huddersfield	Aug. 28, 1843	Private S., Huddersfield
194	London	Taylor, A.	Kennington Park	Aug. 7, 1843	Streatham S.
36	Oxford	Thacker, G. P.	St. John's Park, Hampstead	Apr. 19, 1844	Mount Pleasant House, Sunbury
81	Manchester	Walker, B.	Handley	Mar. 11, 1844	Daisy Bank House, Manchester
209	London	Watkins, T.	New Brompton	May 14, 1844	Collegiate S., Brixton Hill
10	Leeds	West, H. C.	Leeds	Aug. 3, 1843	Grammar S., Leeds
221	London	Whitling, R. C. S.	South Haekney	Aug. 25, 1843	Church of England Gr. S., Haekney
23	Bedford	Wilkinson, J. W.	Bedford	Aug. 29, 1843	Grammar S., Bedford
32	Exeter	Wilkinson, R. S.	Torquay	Nov. 12, 1843	Tor S., Torquay
217	London	Willdey, C. J.	Camden Road, London	Aug. 21, 1844	North London Collegiate S.
89	Manchester	Wilson, T. B.	Manchester	July 24, 1843	Daisy Bank House, Manchester
57	Birmingham	Wood, W. P.	Rugeley	Jan. 27, 1844	Armitage S., Rugeley
18	Oxford	Wootton, A. C.	Luton	July 7, 1843	Watford
227	London	Young, T. E.	Malvern Road, Dalston	Nov. 29, 1843	Madras House, Hackney

Third Division, in Alphabetical order.

Candidate's Number.	Place of Examination.	Name.	Residence.	Date of Birth.	School.
64	Leeds	Alexander, A. W.	Halifax	Aug. 2, 1843	Queen Elizabeth's Gr. S., Halifax
6	London	Archer, F.	Greenwich	Jan. 29, 1845	Proprietary S., Greenwich
2	Birmingham	Ardron, J.	Leicester	July 28, 1843	University S., Nottingham
6	Birmingham	Bache, J. K.	Edgbaston	Feb. 27, 1844	Proprietary S., Edgbaston
48	Leeds	Bailey, R.	Bradford	Apr. 18, 1844	Manor Row Academy, Bradford
50	Exeter	Baker, W. C.	Dawlish	Feb. 21, 1844	South Devon Collegiate S., Heavitree
7	Manchester	Batchelor, T. H.	Collyhurst	Oct. 8, 1844	Higher Broughton S., Manchester
3	Bedford	Bayly, H. E.	Bedford	Jan. 1, 1844	Grammar S., Bedford
91	Manchester	Bchrens, S. L.	Manchester	Dec. 17, 1843	Bowdon
35	Liverpool	Belcher, W. M.	Liverpool	Aug. 18, 1843	Park S., Birkenhead
5	Birmingham	Biddulph, L.	Nottingham	Oct. 15, 1843	Willoughby House Acad., Nottingham
38	Leeds	Billbrough, J.	Bramley	Aug. 21, 1845	Hyde Park S., Headingley
9	Manchester	Binney, F. A.	Hull	July 3, 1844	Daisy Bank House, Manchester.
21	London	Blackmore, C. F.	Wandsworth	Jan. 19, 1844	Clarendon House, Lambeth
11	Cheltenham	Bonnett, W.	Swansea	Mar. 5, 1844	York Place Academy, Swansea
9	Exeter	Born, E.	Exeter	Sept. 22, 1843	Mansion House S., St. David's, Exeter
28	London	Brett, J.	London	Jan. 1, 1845	Brunswick House, Barnet
27	London	Brett, H.	Southwark	Aug. 24, 1845	St. Olave's and St. John's Free Gr. S.
52	Oxford	Brickwell, F.	Sawbridgeworth	Apr. 7, 1844	Grammar S., Market Bosworth

11	Southampton	Bulgin, W.	Blandford	May 31, 1843	Concragate S., Aylisham
141	London	Burn, R.	Epsom	May 27, 1845	Blandford Academy
55	Bath	Bush, C. A.	Doynton	Jun. 1, 1844	Mansion Grammar S., Leatherhead
35	London	Cabban, J.	Greenwich	Dec. 19, 1843	Grosvenor Place, Bath
71	Oxford	Champion, C. F.	Knightsbridge Barracks	May 23, 1845	Proprietary S., Greenwich
37	Bath	Clifford, E.	Kingsdown, Bristol	July 6, 1845	St. Mark's S., Windsor
34	Exeter	Coaker, W. H.	Charleton	Mar. 27, 1844	Cotham, Bristol
40	London	Cole, A. B.	Bayswater	Aug. 4, 1844	St. Edmund's S., Kingsbridge
20	Manchester	Connah, T. W.	Piltown	Mar. 22, 1844	Grammar S., Bayswater
6	Bedford	Conquest, F. W.	Biggleswade	Nov. 2, 1843	Hawthorn Hall, Wilmslow
21	Manchester	Cook, K. R.	Smallbridge	June 27, 1844	The Academy, Biggleswade
3	Oxford	Coxeter, W.	Abingdon	Sept. 26, 1845	Hamer School, Rochdale
18	Cheltenham	Oughton, J.	Hatherop, Gloucestershire	Jan. 20, 1845	Richmond House, Reading
49	London	Dalton, J. S.	Prince's Place, London	Aug. 29, 1843	Grammar S., Northleach
27	Manchester	Dean, J. G.	Sykeside	Sept. 19, 1845	Clarendon House, Lambeth
10	Southampton	Dick, R.	Gunville	Oct. 4, 1844	Haslingden
51	London	Douglas, W.	Percy Cross, Fulham	Nov. 6, 1843	Academy, Blandford
153	London	Doulton, J. K.	Mortlake	Oct. 4, 1843	Rectory House, Parsons Green
31	Leeds	Earnshaw, W. J.	Pickering	June 2, 1844	Mansion Grammar S., Leatherhead
67	Leeds	England, T.	Howden	Apr. 20, 1844	Collegiate S., Pickering
20	Cheltenham	Evans, E. C.	Cardiff	July 31, 1844	Tickhill
16	Bath	Evanson, E. R.	Bristol	Mar. 3, 1844	College S., Gloucester
59	London	Fabris, F. W.	Regent's Villas, London	Nov. 26, 1843	Grammar S., Bristol
52	Leeds	Fisher, J. T.	Chelsea	Aug. 22, 1843	Montpellier House, Brighton
5	Leeds	Ford, J. R.	Leeds	May 5, 1845	Moravian S., Fulneck
64	Oxford	Foster, J. W.	Chepstow	July 29, 1844	Broomfield House, Headingley
9	Bedford	French, C. J.	Bedford	Oct. 10, 1843	Normal College, Swansea
15	Leeds	Garside, T. R.	Leeds	Dec. 19, 1843	Commercial S., Bedford
15	Oxford	Gelson, G.	Wolstanton	Jan. 10, 1846	Bramham College, Tadcaster
				Jan. 1, 1844	Grammar S., Newcastle-under-Lyme

Candidate's Number.	Place of Examination.	Name.	Residence.	Date of Birth.	School.
35	Bath	Goodwyn, J. E.	Clifton	Mar. 4, 1844	Cotnam, Bristol
236	London	Grenville, H. J. K.	Ebury St., London	Oct. 19, 1843	Poland Street Academy
6	Leeds	Hackney, B. B.	Hull	Apr. 4, 1845	Moravian S., Fulneck
53	Bath	Harbour, J. L.	Bristol	Feb. 20, 1844	Grammar S., Bristol
5	Exeter	Harvey, W. H.	Taunton	Oct. 5, 1843	Mansion House S., St. David's, Exeter
228	London	Henchman, H.	Edmonton	Sept. 15, 1843	Edmonton
80	London	Hewitt, A.	King William Street, Strand	Aug. 7, 1844	North London Collegiate S.
13	Bath	Hill, A. F.	Wookey	Aug. 21, 1843	Grammar S., Shepton Mallet
21	Birmingham	Hills, G. A.	Edgbaston	Apr. 25, 1844	Proprietary S., Edgbaston
239	London	Himing, F. W.	Shacklewell	May 20, 1845	Eagle House S., Tottenham
23	Birmingham	Hodges, S. T.	Birmingham	June 8, 1844	Shireland Hall, Smethwick
13	Bedford	Holderness, H. H.	Bedford	Nov. 1, 1843	Commercial S., Bedford
83	London	Holloway, J.	Waterloo Road, Lambeth	Aug. 12, 1844	St. Olave's and St. John's Free Gr. S.
71	Leeds	Hornby, W.	Drifford	May 27, 1844	Edenfield House, Doncaster
10	Oxford	How, L. G. B.	Basingstoke	Mar. 3, 1844	Queen's Grammar S., Basingstoke
85	London	Howard, J.	Blechingley, Surrey	Nov. 11, 1844	Proprietary S., Greenwich
17	Liverpool	Humphreys, W.	Crosby	Nov. 15, 1843	Park S., Birkenhead
35	Leeds	Jenkinson, W.	Filey	Aug. 15, 1844	Albion Place Academy, Scarborough
91	London	Jepps, J. W.	Camberwell	Jan. 10, 1844	Denmark Hill Grammar S.
49	Manchester	Jones, C. H.	Manchester	Mar. 22, 1844	Stony Knolls High S., Manchester
103	London	Laroche, E. B.	Camden New Town	June 25, 1844	North London Collegiate S.
104	London	Lawton, E. B.	Lambeth	Aug. 15, 1843	Clarendon House, Lambeth
14	Exeter	Mackwood, F. M.	Exeter	July 12, 1843	Mansion House S., St. David's, Exeter
49	Liverpool	Mc Keverigan, A.	Birkenhead	June 7, 1844	High S., Liverpool Institute
15	Bedford	Malden, J. J.	Biggleswade	Oct. 15, 1843	The Academy, Biggleswade
37	Leeds	Mallett F.	Woodhouse, Yorkshire	Mar. 14, 1844	Hyde Park S., Headingley
20	Leeds	Mallett F.	Elmdon Lee, Essex	Nov. 21, 1843	Streatham S.
2	Leeds	Mallett F.	Elmdon Lee, Essex	Sept. 10, 1845	York Street, Airedale

9	Leeds	Nelson, C. S.	Southampton	Sept. 10, 1845	York Street Academy, Swansea
129	London	Newcomb, W.	Fulneck	Mar. 26, 1844	Moravian S., Fulneck
40	Exeter	Newman, A. J.	Greenwich	July 29, 1844	Proprietary S., Greenwich
61	Manchester	Nicholson, A.	Exeter	Aug. 1, 1843	Marlbro' House S., Exeter
64	Manchester	Noton, G. W.	Old Trafford	June 25, 1844	Chorlton High S., Manchester
35	Birmingham	Osler, A. C.	Manchester	May 2, 1844	Fullarton House, Manchester
137	London	Owen, C.	Edgbaston	Oct. 4, 1846	Proprietary S., Edgbaston
36	Birmingham	Parkinson, S.	Clapham	Apr. 11, 1844	Clapham British S.
86	Manchester	Phillips, J. W.	Skipton	Aug. 11, 1843	Midland S., Coventry
145	London	Pickering, G. A.	Brunshaw	July 30, 1844	Grammar S., Burnley
149	London	Plummer, John	Brixton	June 16, 1844	Clarendon House, Lambeth
152	London	Preston, E.	Deptford	Feb. 5, 1845	Proprietary S., Greenwich
52	London	Price, W. R.	Deptford	Mar. 12, 1845	Proprietary S., Greenwich
28	Oxford	Procter, H. T.	Surbiton Hill	June 30, 1843	Mansion Grammar S., Leatherhead
156	London	Punnett, G.	Northall, Bucks	Mar. 12, 1844	Craufurd College, Maidenhead
66	Manchester	Rateliffe, H.	Tonbridge	Oct. 27, 1843	Belvidere House, Upper Norwood
157	London	Rawlins, H.	Manchester	May 7, 1844	Boys' Day Classes, Mechanics' Institution
158	London	Ray, H. F. A.	Kentish Town	Jan. 18, 1844	North London Collegiate S.
161	London	Renshaw, A. G.	Dulwich	Mar. 23, 1846	Collegiate S., Camberwell
1	Southampton	Riddett, L. C.	St. John's Wood	Sept. 8, 1844	Loudoun House, St. John's Wood
167	London	Robinson, C. H.	Ryde	Aug. 29, 1843	Totteridge Park S., Herts
68	Manchester	Robinson, E.	Belvidere Road, Lambeth	Feb. 4, 1844	Clarendon House, Lambeth
70	Manchester	Robinson, H.	Higher Broughton	Feb. 4, 1845	Higher Broughton S., Manchester
171	London	Roe, G. H.	Cheetham	June 16, 1845	Higher Broughton S., Manchester
169	London	Roe, H. J.	Chelsea	Apr. 15, 1844	Oxford House, King's Road, Chelsea
17	Exeter	Row, T.	Clerkenwell, London	Oct. 25, 1844	St. Thomas' Charterhouse, Upper S.
24	Leeds	Rowley, A.	Thorverton	Feb. 9, 1845	Mansion House S., St. David's, Exeter
43	Birmingham	Sanders, J. H.	Crofton	Oct. 11, 1844	Hemsworth S.
177	London	Scott, J.	Birmingham	Jan. 23, 1844	Proprietary S., Edgbaston
			Kentish Town	Jan. 2, 1844	North London Collegiate S.

Candidate's Number.	Place of Examination.	Name.	Residence.	Date of Birth.	School.
179	London	Seymour, H.	Bayswater	May 4, 1845	Grammar S., Bayswater
181	London	Shayler, C. W.	Wouston, Hants	Jan. 5, 1845	Grammar S., Farnham
46	Birmingham	Shelton, J.	Edgbaston	July 29, 1844	Proprietary S., Edgbaston
45	Bath	Simms, W.	Bath	May 10, 1844	Grammar S., Bath
33	Oxford	Simpson, J. E.	Preston	Feb. 16, 1844	Craufurd College, Maidenhead
48	Birmingham	Smith, W. A.	Birmingham	Aug. 17, 1845	Proprietary S., Edgbaston
47	Birmingham	Smith, W. W.	Sheffield	Sep. 15, 1844	Commercial S., Sheffield
186	London	Sparks, J. A.	North Benfleet, Essex	Aug. 22, 1843	Totteridge Parks, Herts
52	Exeter	Staples, J. C.	Exmouth	Mar. 13, 1844	St. Mary Church
22	Bath	Stiles, E. M.	Chippenham	July 3, 1843	Academy, Chippenham
17	Leeds	Strongitharm, A. H.	Walsall	July 22, 1843	Bramham College near Tadcaster
52	Birmingham	Stuart, W.	Birmingham	June 24, 1844	Shireland Hall, Birmingham
20	Liverpool	Stubbs, R.	Birkenhead	June 16, 1844	Park S., Birkenhead
191	London	Stubbs, Joseph	Clapton	Sept. 24, 1843	Church of England S., Hackney
51	Birmingham	Stubbins, H.	Armley, Leeds	Jan. 16, 1845	Proprietary S., Edgbaston
16	Exeter	Templeton, M.	Exeter	July 23, 1846	Mansion House S., St. David's, Exeter
198	London	Terry, J. F.	Claremont Place, London	July 19, 1843	North London Collegiate S.
79	Manchester	Thackray, E.	Manchester	June 20, 1844	Boys' Day Classes, Mechanics' Institution
201	London	Tootell, C. J.	Kennington Park, Surrey	Dec. 1, 1844	Winchester House, Kennington Green
240	London	Turner, F.	Homerton	Jan. 7, 1844	Eagle House S., Tottenham
22	Bedford	Twiss, E. C.	Wrestlingworth	Jan. 18, 1844	Grammar S., Bedford
15	Southampton	Ure, E.	Southampton	Jan. 22, 1845	Houndwell View Acad., Southampton
27	Bath	Vinc, E. H.	Blandford	Nov. 13, 1843	Commercial S., Sherborne
208	London	Waight, A. H.	Lambeth Walk	Sept. 20, 1844	Clarendon House, Lambeth
7	Cheltenham	Walker, S.	Cheltenham	Aug. 26, 1843	Grammar S., Cheltenham
30	Liverpool	Walton, J.	Sefton	Sept. 25, 1845	St. F. Xavier's Collegiate S., Liverpool
8	Exeter	Ward, R. H.	Exeter	Oct. 9, 1845	Mansion House S., St. David's, Exeter

211	London	Wells, E. O.	Deptford	Sept. 20, 1844	Proprietary S., Greenwich
213	London	Weston, J. W.	Lambeth	Sept. 1, 1845	Clarendon House, Lambeth
10	Exeter	White, A. J.	Ugborough, Devon	Aug. 22, 1843	Mansion House S., St. David's, Exeter
6	Manchester	Whitworth, T.	Manchester	Feb. 18, 1844	Fullarton House, Manchester
87	Manchester	Williams, T.	Higher Broughton	Nov. 10, 1843	Stony Knolls High S., Manchester
47	Leeds	Williamson, W. W.	Bradford	Dec. 6, 1844	Manor Row Academy, Bradford
44	Liverpool	Woollard, E. J.	Liverpool	Sept. 9, 1844	Commercial Schools, Soho Street
225	London	Wordley, J.	Camden Town	Dec. 3, 1844	North London Collegiate S.
53	Leeds	Wrigley, W.	Huddersfield	Aug. 11, 1843	Huddersfield College
226	London	Wynne, L. W.	Upper Gower Street, London	Feb. 2, 1844	North London Collegiate S.
33	Cheltenham	Yeld, G.	Twyford	Mar. 23, 1845	Proprietary S., Hereford
58	Birmingham	Young, T. P.	Bury	July 21, 1844	The Old Hall, Wellington, Salop

OXFORD,

August 4, 1858.

